

INDIANA
LIMESTONE
INSTITUTE

BEDFORD

INDIANA

STRUCTURAL
DETAILS

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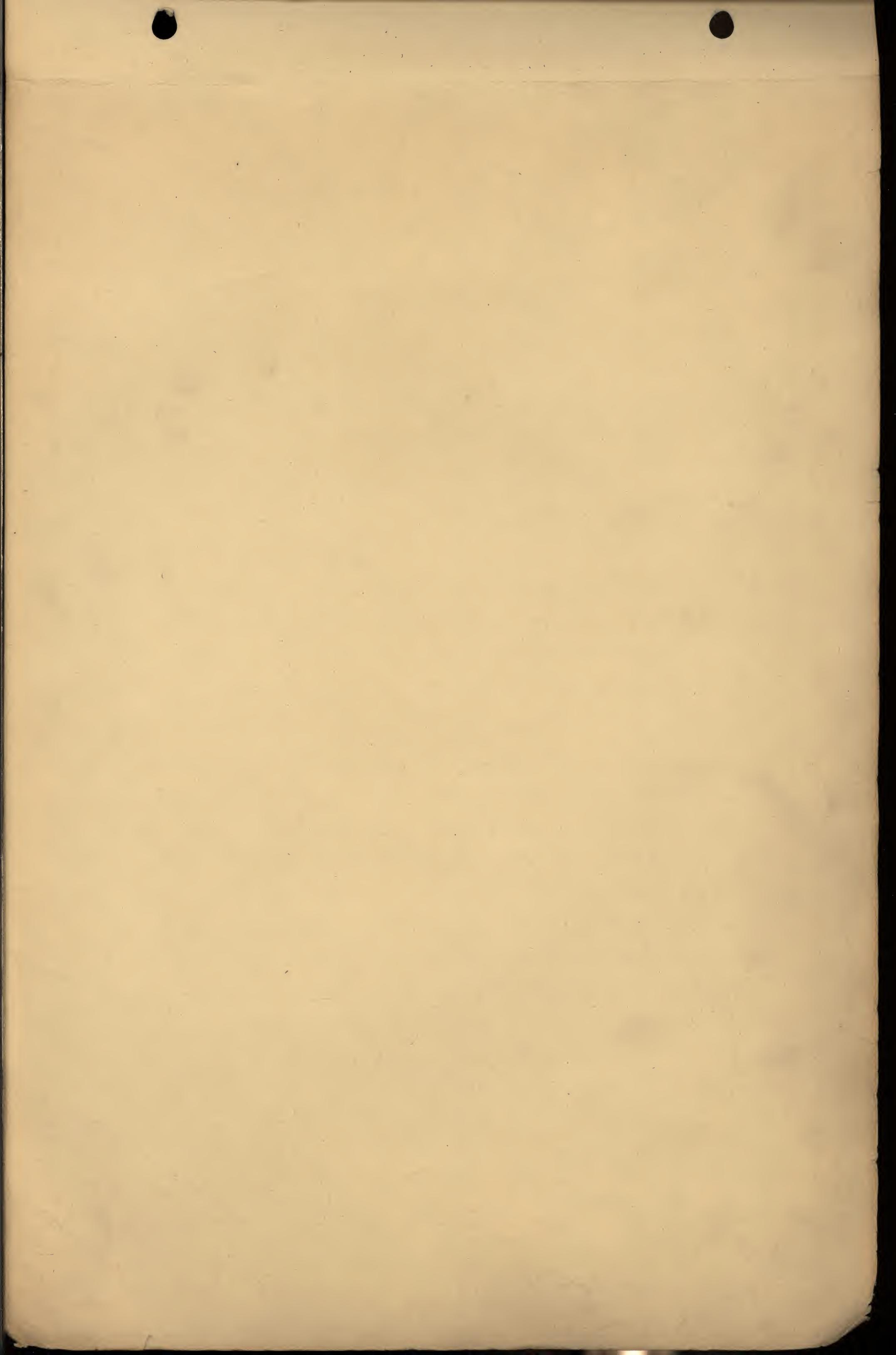
<http://seaa.tulane.edu>

Foreword

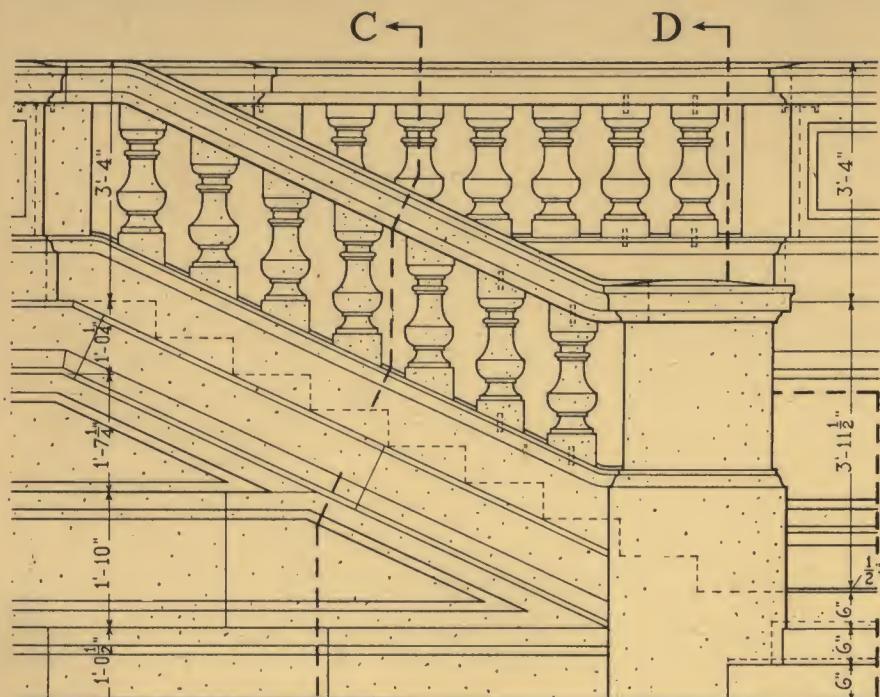
In the issuance of this series of cut stone details, we are hopeful that architects will find these plates to be always interesting and frequently helpful.

Architects having any particular problem relating to the detailing, treatment or handling of cut Indiana Limestone are earnestly invited to submit these problems to the Technical Division of the Indiana Limestone Institute.

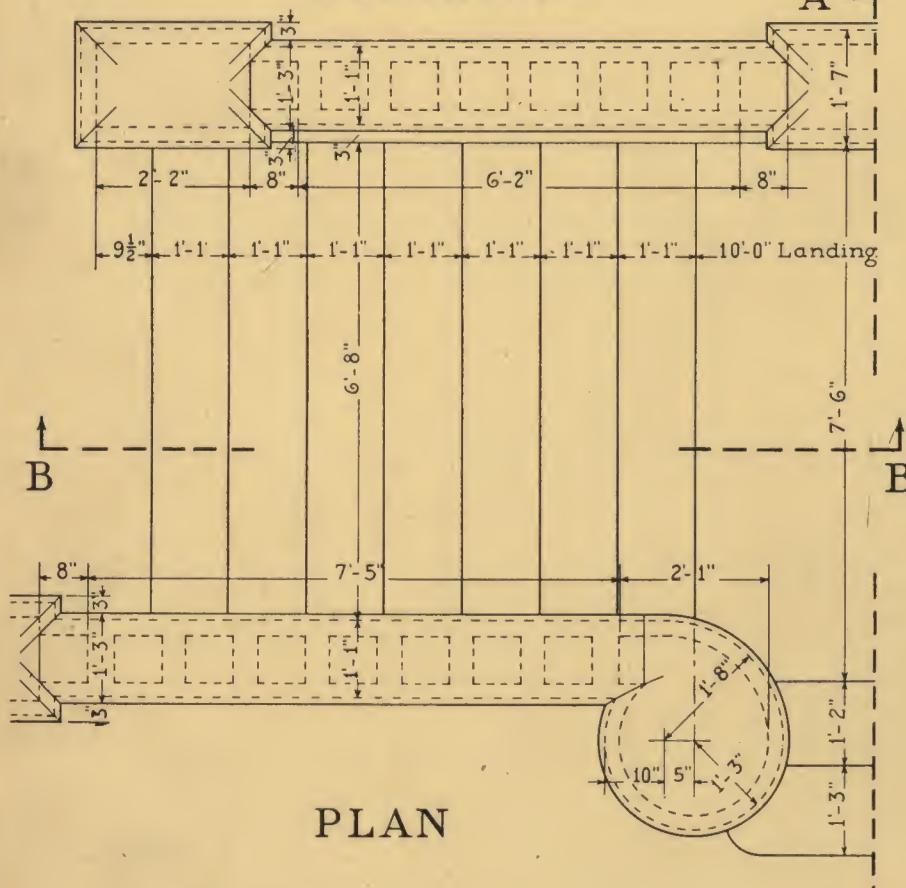
The services of our technicians will be applied to these problems and of course these services will be entirely gratuitous.



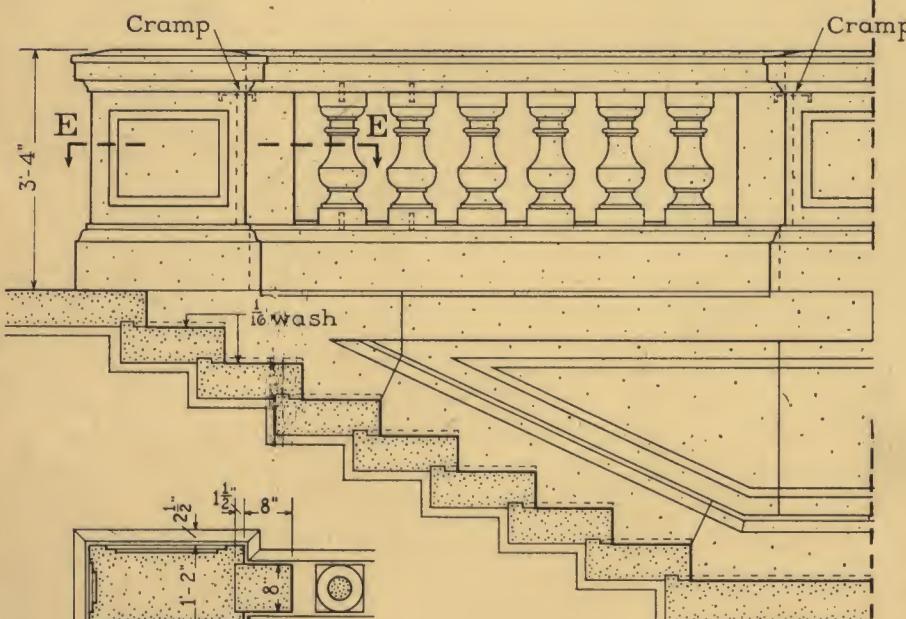
STRUCTURAL DESIGN FOR INDIANA LIMESTONE



ELEVATION

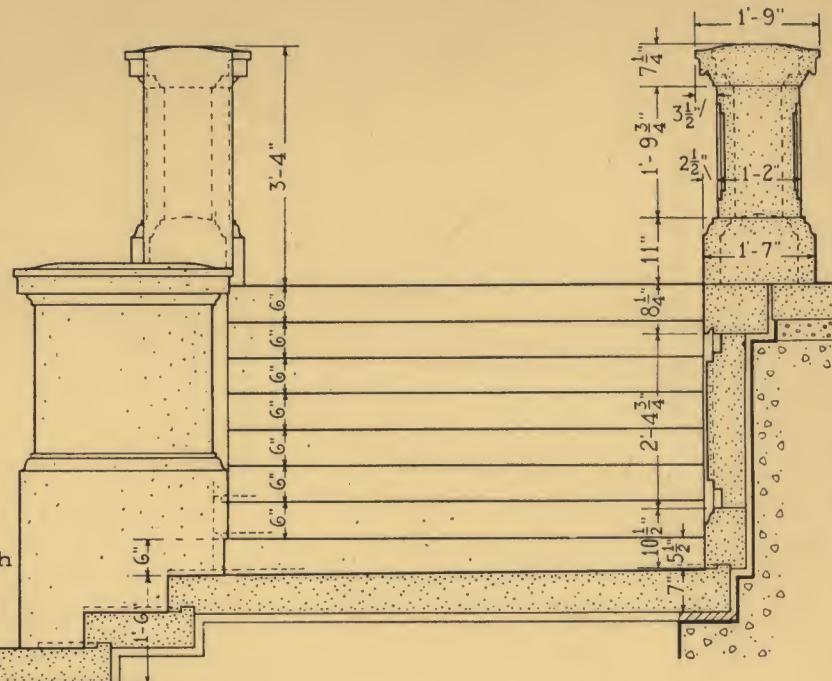


PLAN

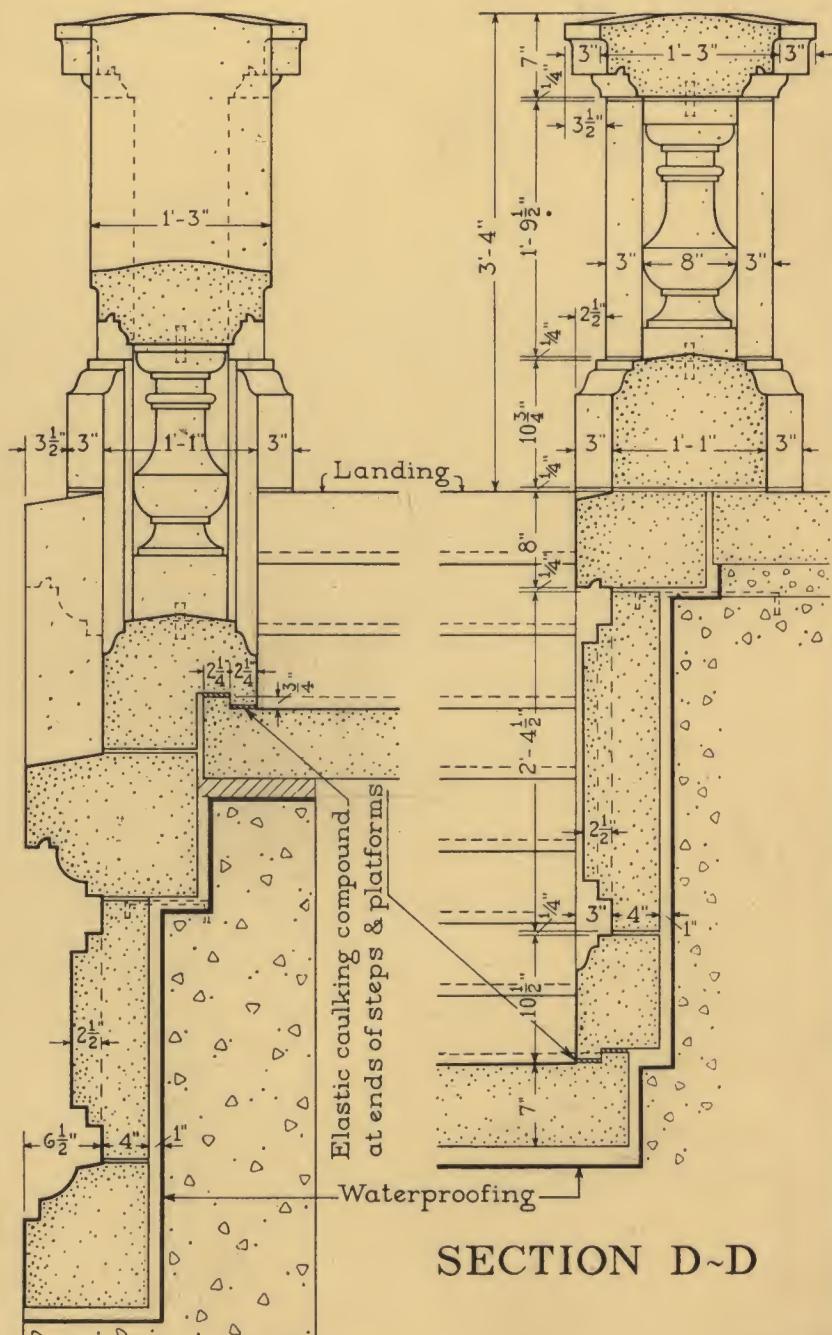


SECTION E-E

SECTION B-B



SECTION A-A



SECTION D-D

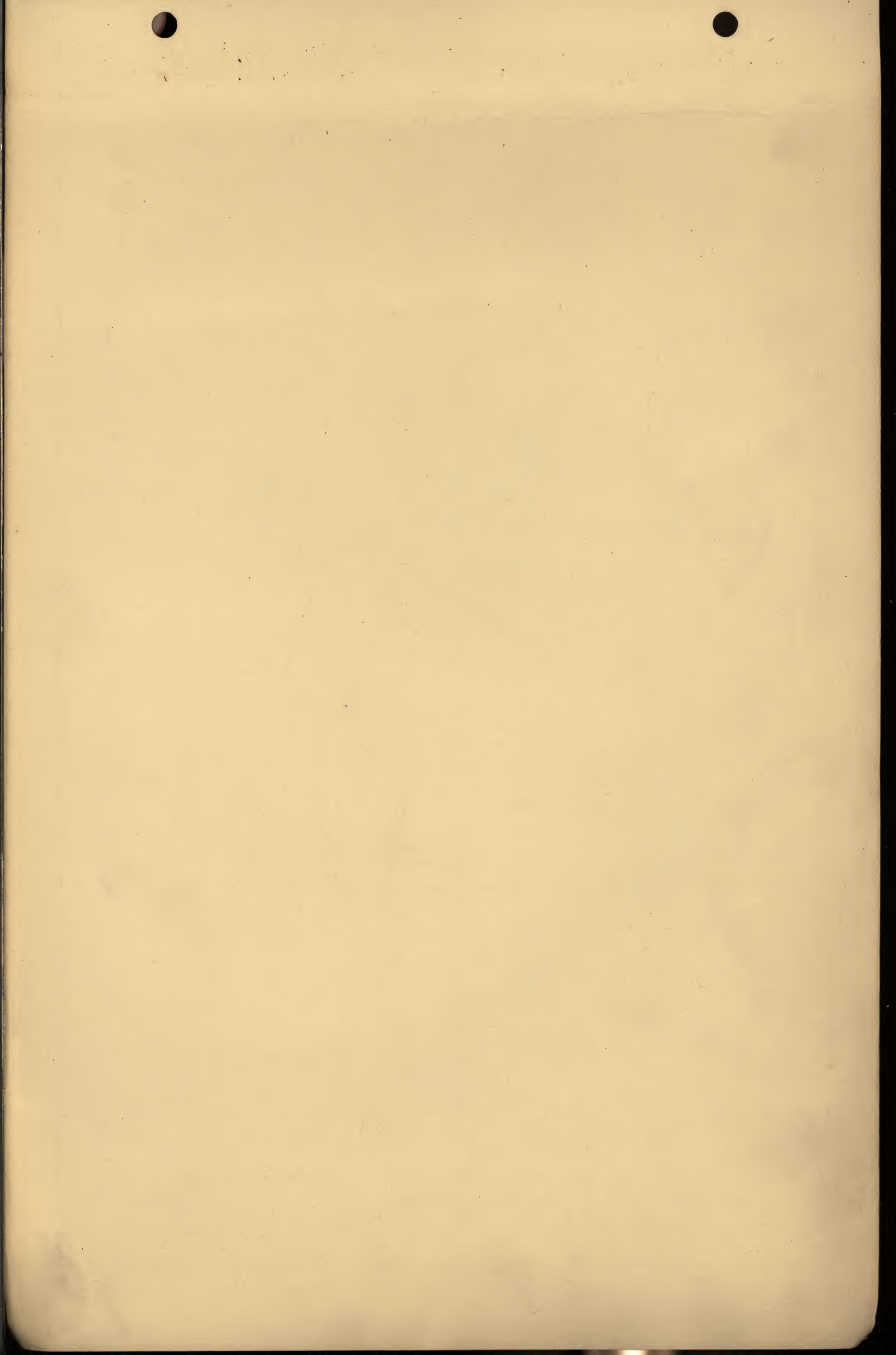
SECTION C-C

THE NATION'S
BUILDING
STONE

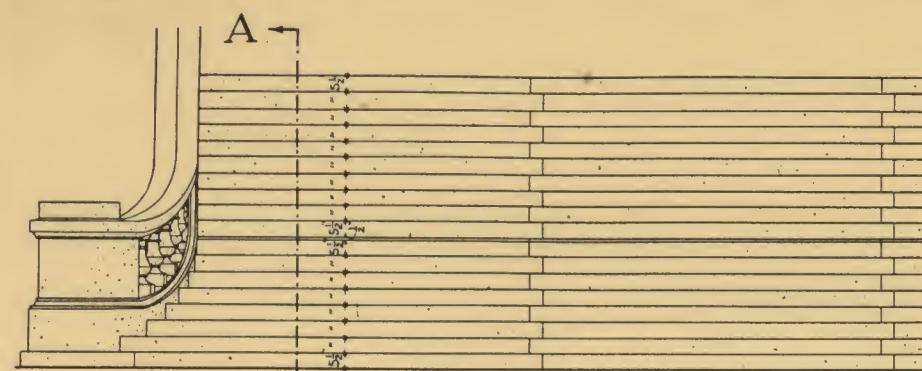
STAIRWAYS
Recommended Construction of Steps and Rails
to Prevent Displacement.

DRAWING #18

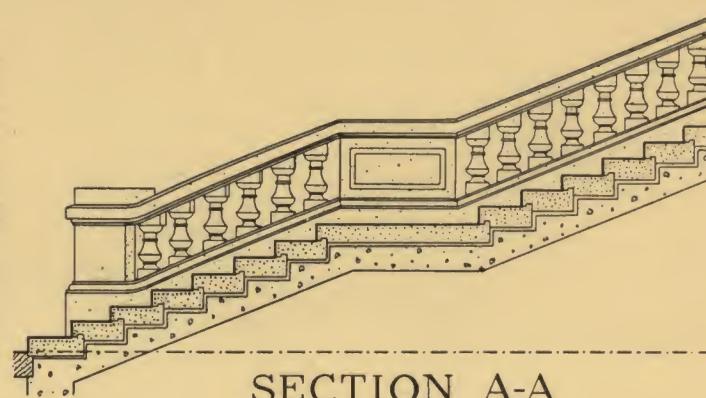
Binder File
Classification 87.1



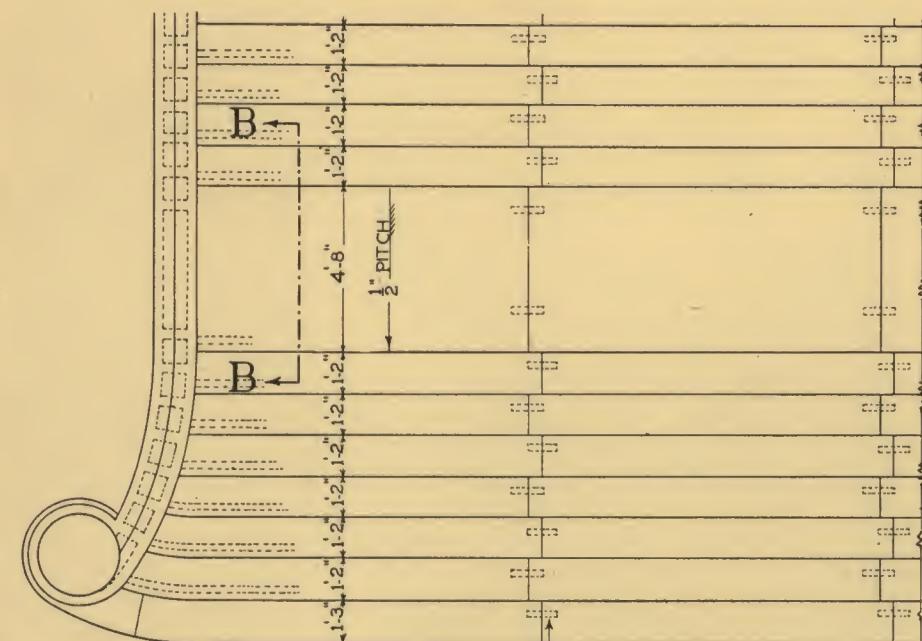
STRUCTURAL DESIGN FOR INDIANA LIMESTONE



ELEVATION

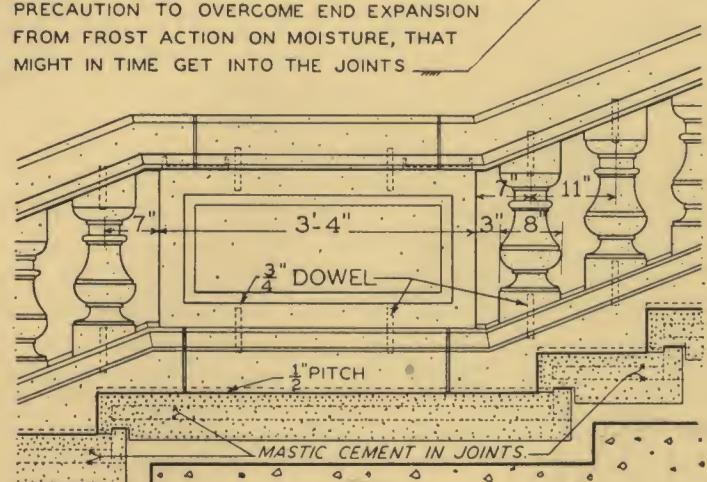


SECTION A-A

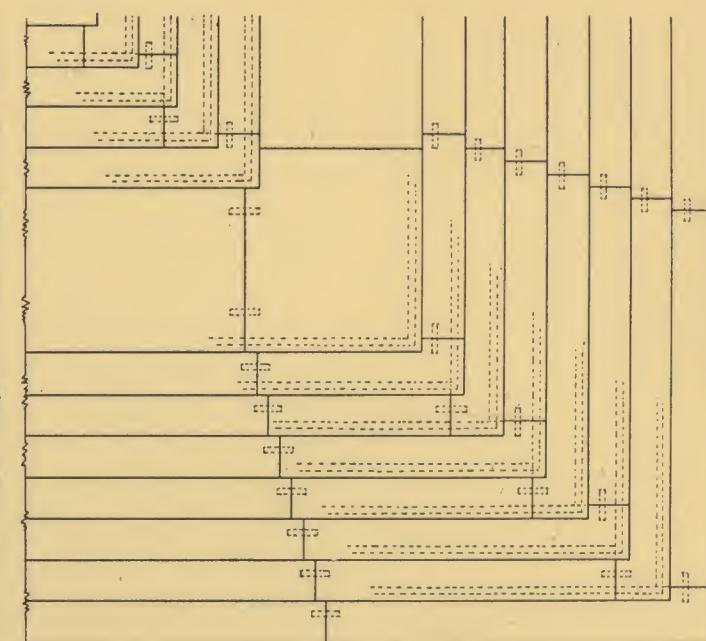


PLAN

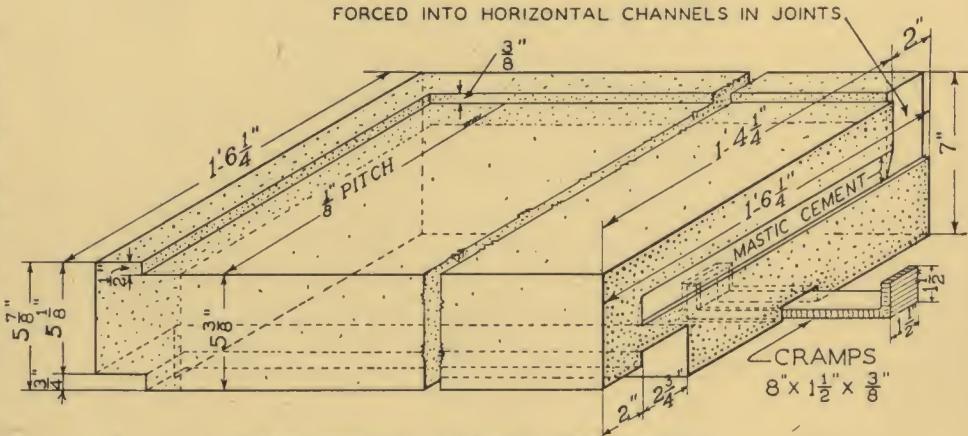
NOTE:-
CRAMPS UNDER JOINTS OF STEPS ARE AN ADDED
PRECAUTION TO OVERCOME END EXPANSION
FROM FROST ACTION ON MOISTURE, THAT
MIGHT IN TIME GET INTO THE JOINTS



SECTION B-B



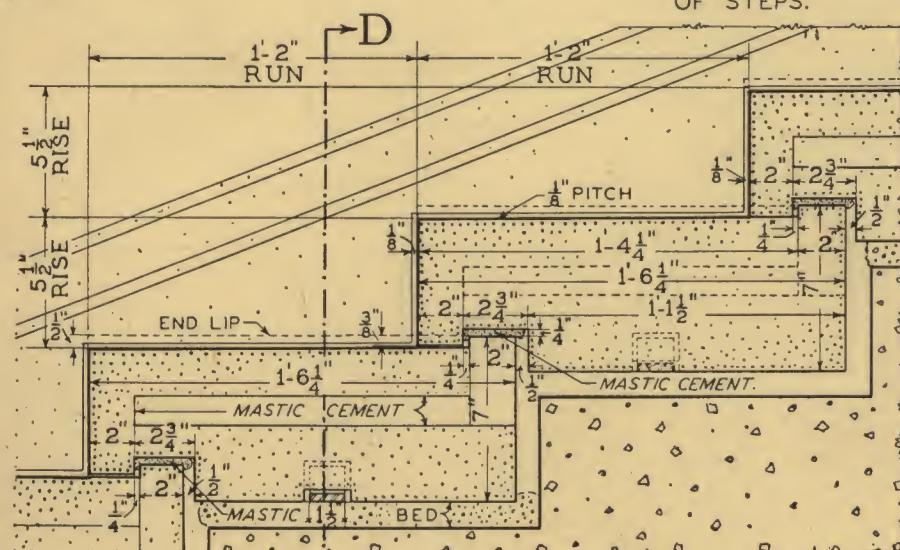
NOTE:- CHECKS AT JOINTS ON BACK OF STEPS ARE TO
PROVIDE OPENINGS THROUGH WHICH MASTIC CAN BE
FORCED INTO HORIZONTAL CHANNELS IN JOINTS.



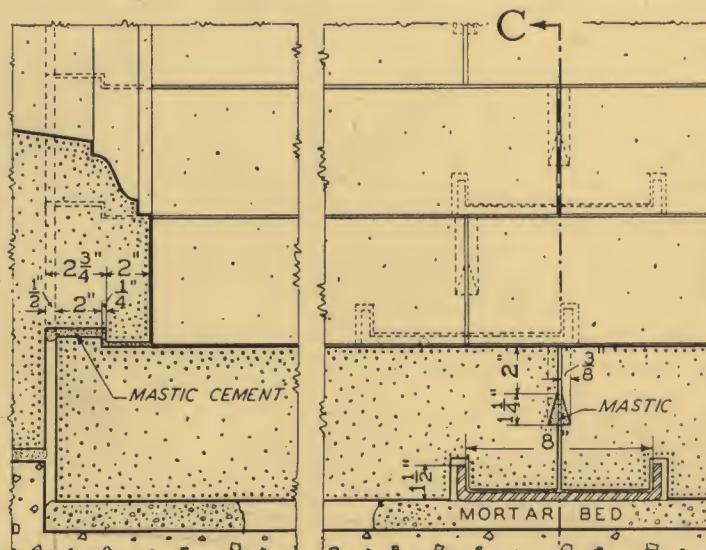
ISOMETRIC VIEW OF STEP

→ CHECKS IN BOTTOM OF CURB, AND LIPS ON END STEPS FITTING INTO
SAME, PREVENT DISPLACEMENT OF CURB.

→ LIPS AT BACK OF STEPS FITTING INTO BOTTOMS OF STEPS ABOVE,
PREVENT FORWARD MOVEMENT BY FROST ACTION ON MOISTURE BACK
OF STEPS.



SECTION C-C



SECTION D-D

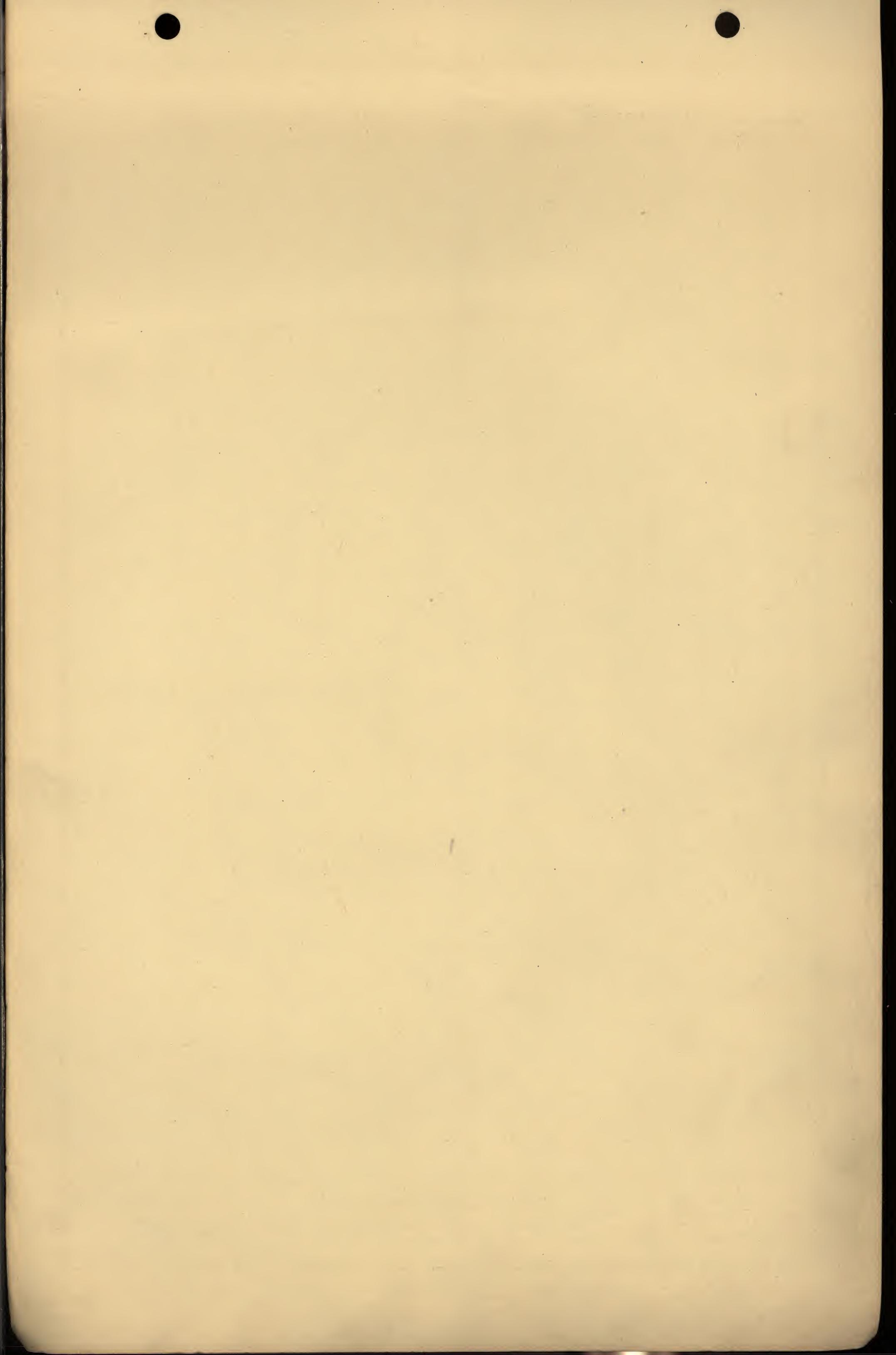
C.W. NOTHNAGEL, DEL.

THE NATION'S
BUILDING
STONE

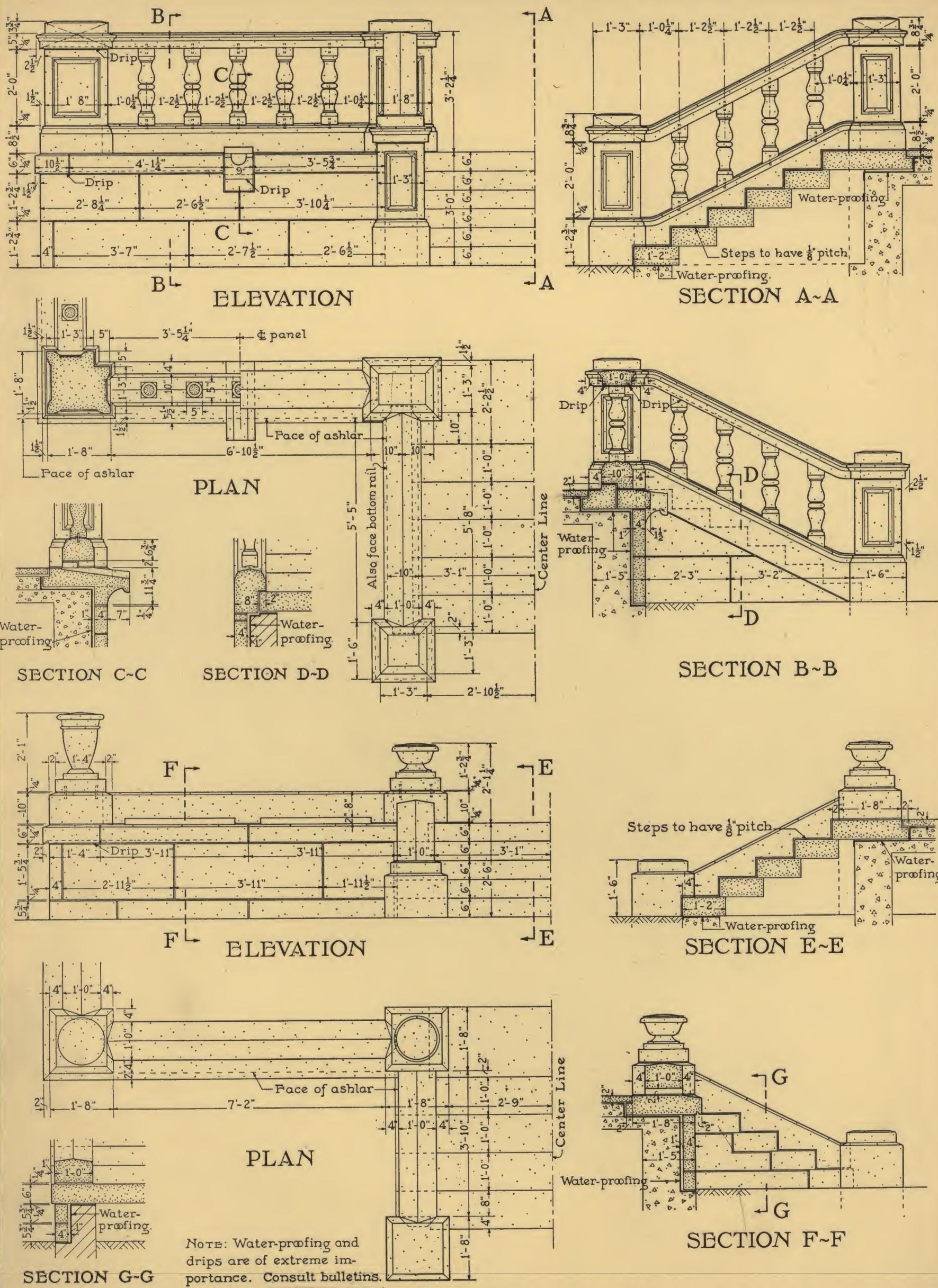
STEPS AND CURBS
Construction for Steps and Curbs to
Prevent Displacement

DRAWING #34

Binder File
Classification } 87.2



STRUCTURAL DESIGN FOR INDIANA LIMESTONE



THE NATION'S BUILDING STONE

TERRACES

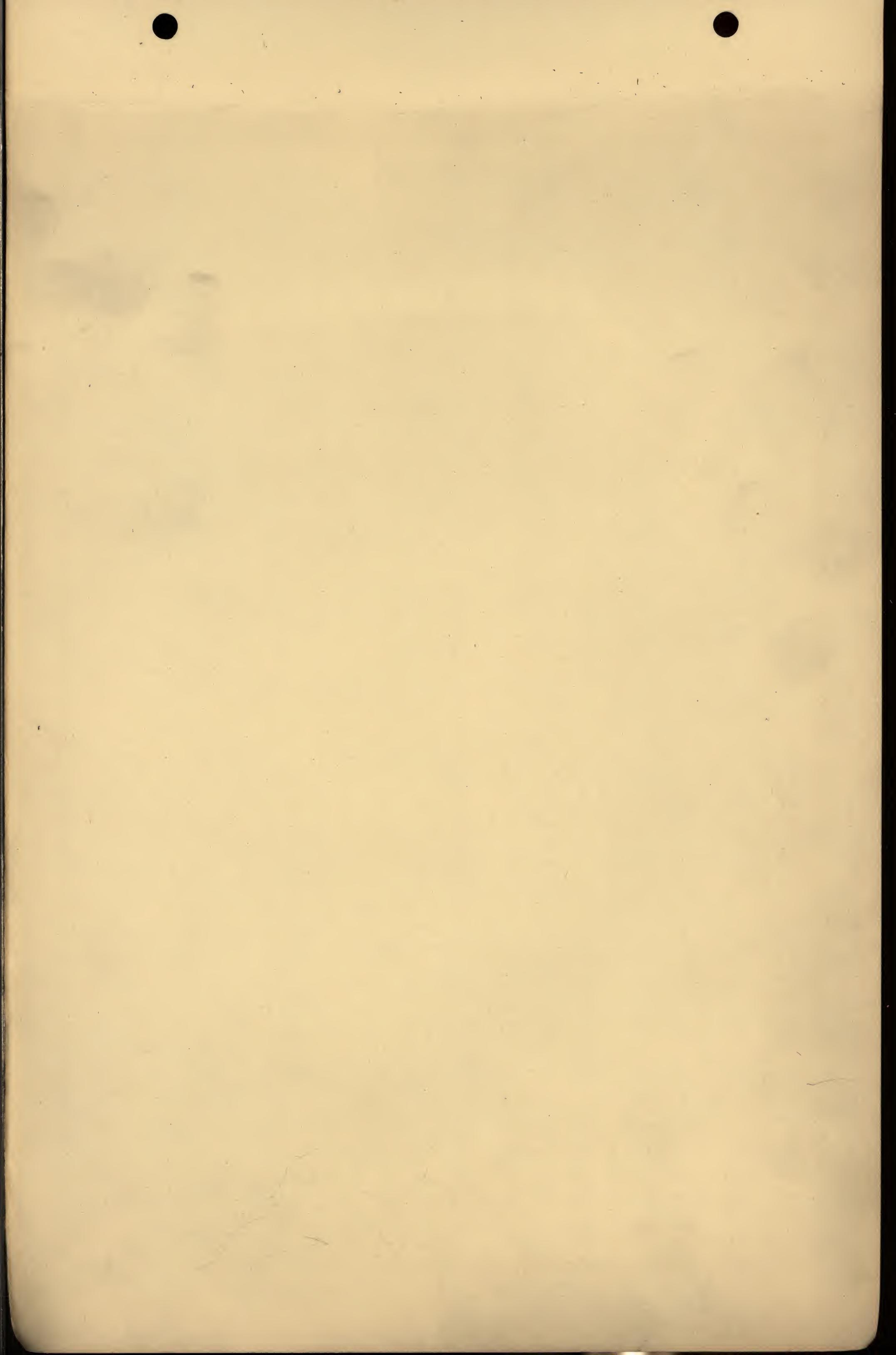
Step and Balustrade Construction showing protection against Staining and Efflorescence

DRAWING Φ-8

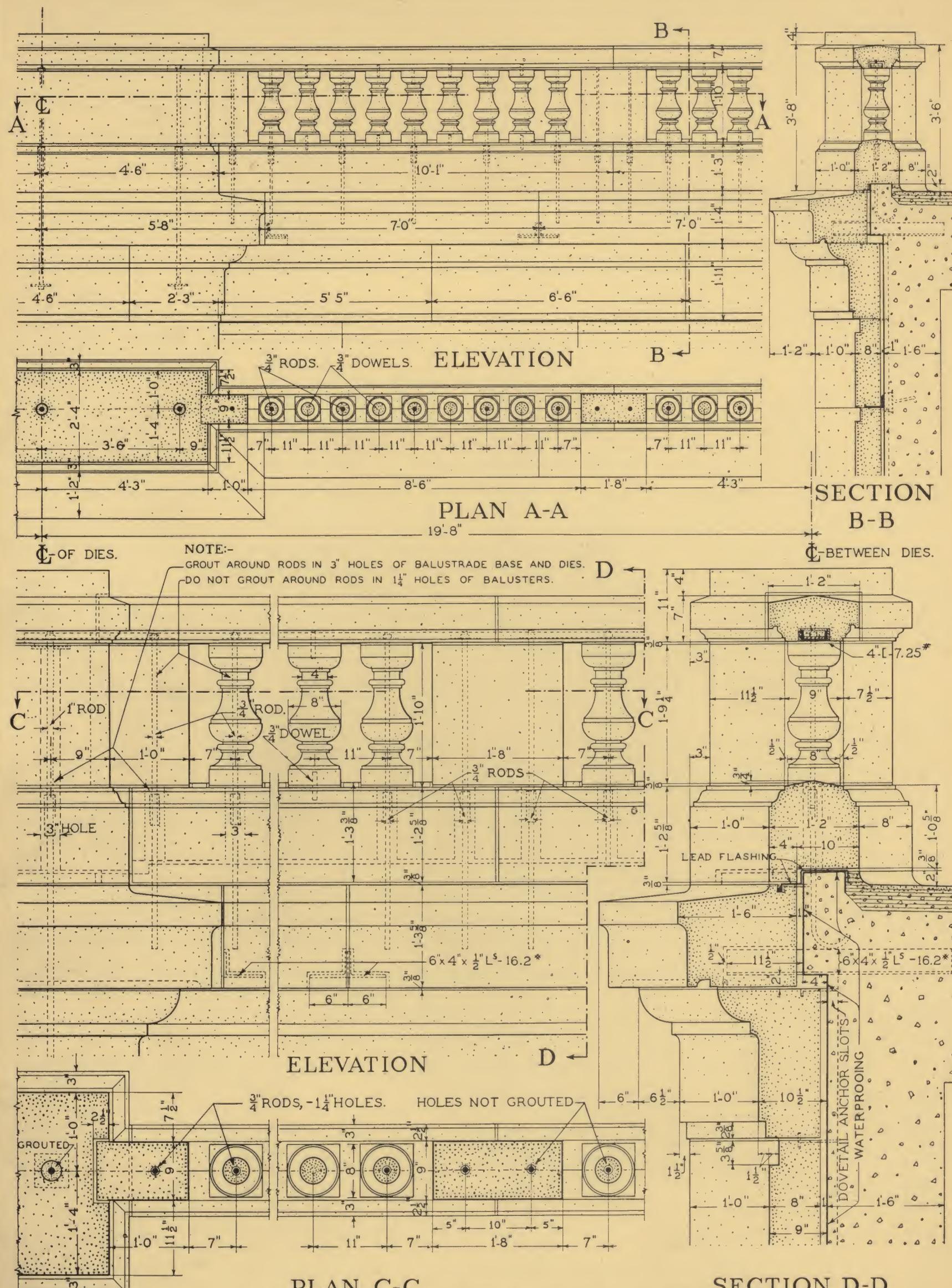
Binder File } 81.1
Classification }

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STRUCTURAL DESIGN FOR INDIANA LIMESTONE



FOR CONCRETE AND STEEL SUPERSTRUCTURE,
SEE DRAWING NO. 33.

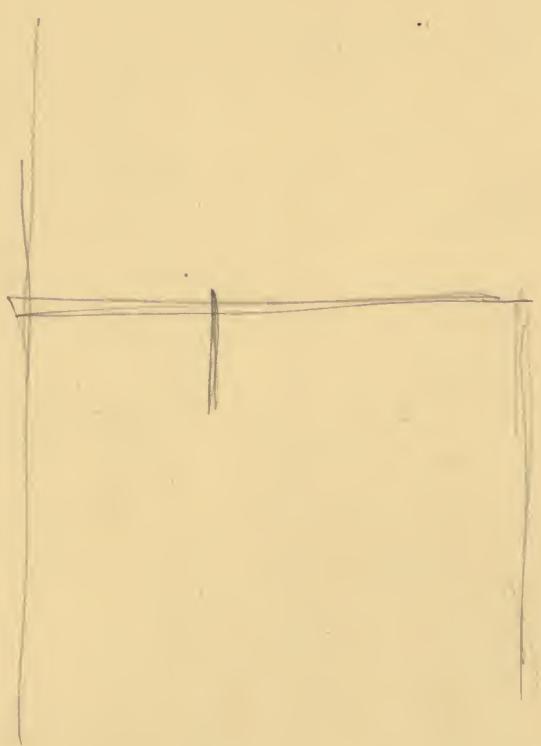
**THE NATION'S
BUILDING
STONE**

**BALUSTRADE
STONE DETAILS**

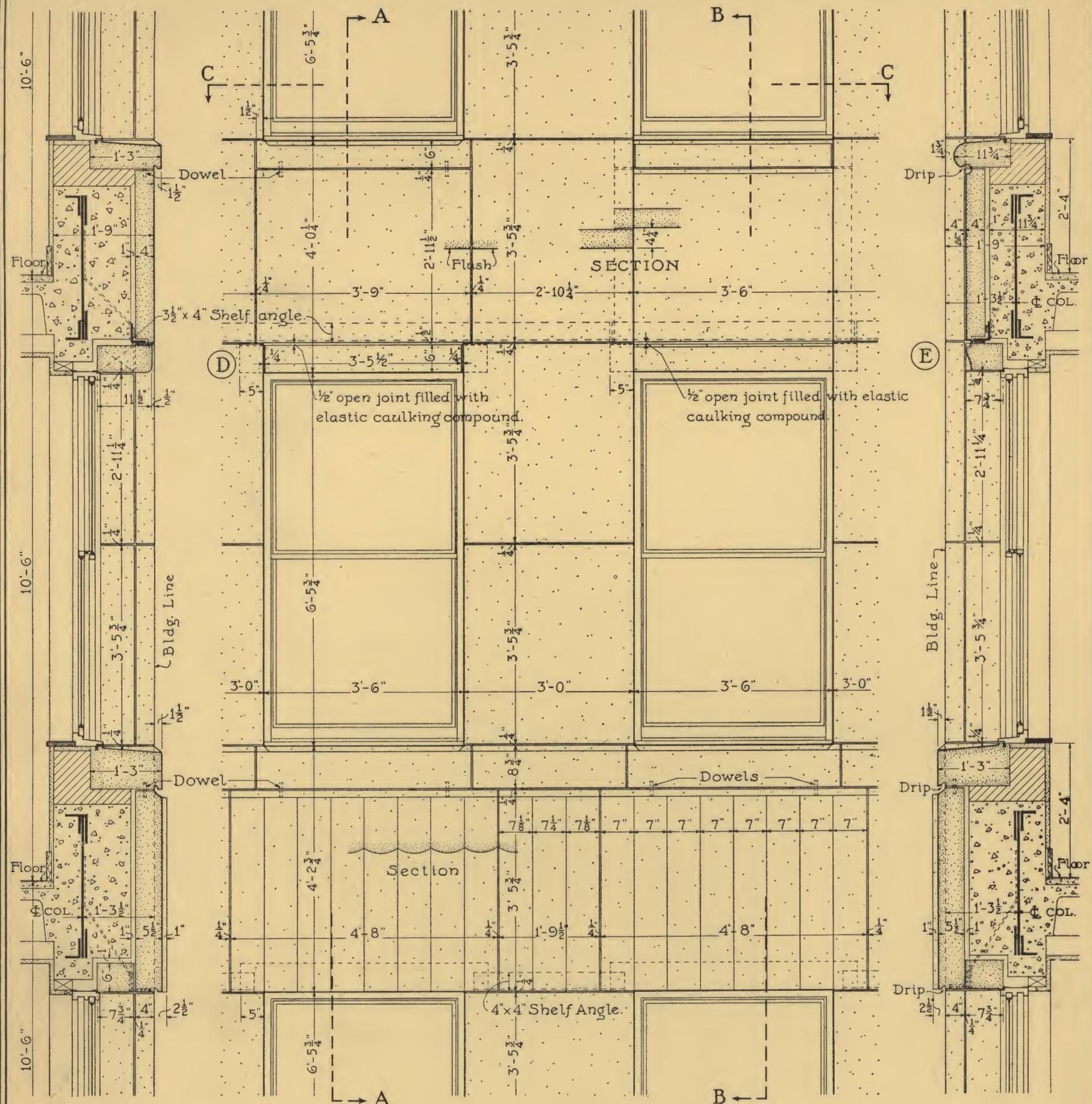
For Viaducts and Bridges, Featuring Special
Construction that will withstand Heavy Impact

DRAWING #32

Binder File
Classification } 75.1

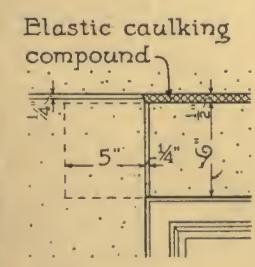


STRUCTURAL DESIGN FOR INDIANA LIMESTONE

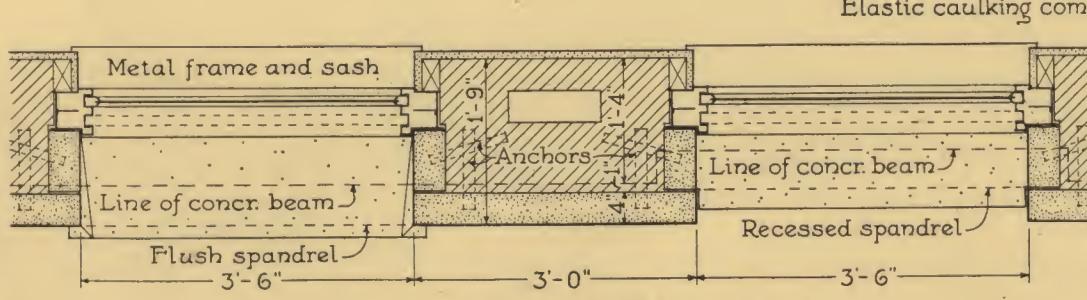


SECTION
A-A

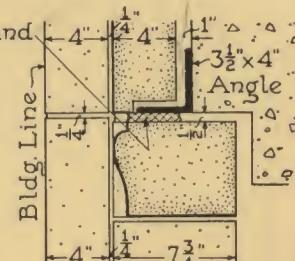
- ELEVATION OF FLUSH & RECESSED SPANDRELS - SECTION
B-B



ELEVATION AT (D)



PLAN ON LINE C-C



SECTION AT (E)

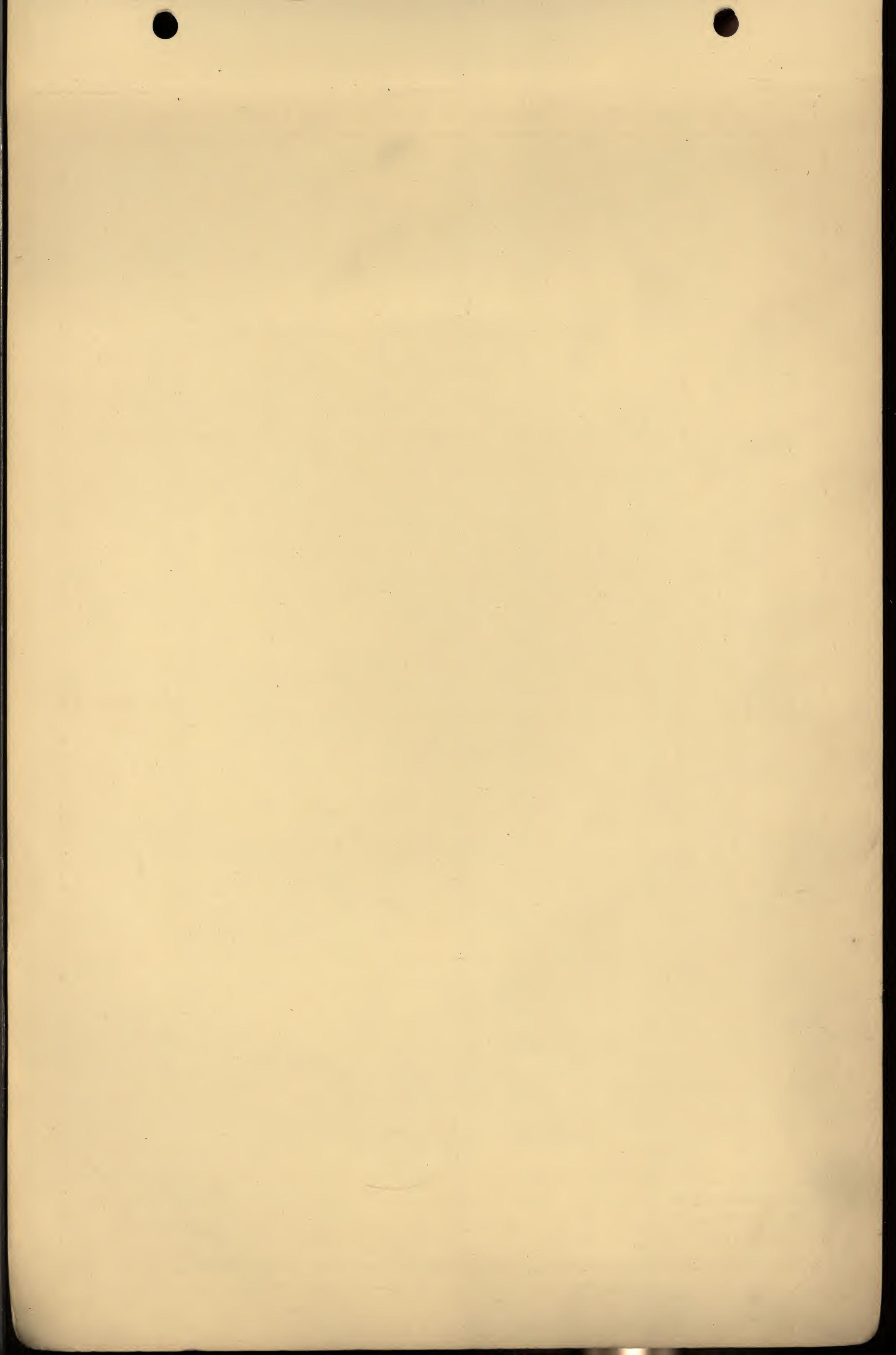
Scale 1" = 1'-0"

THE NATION'S
BUILDING
STONE

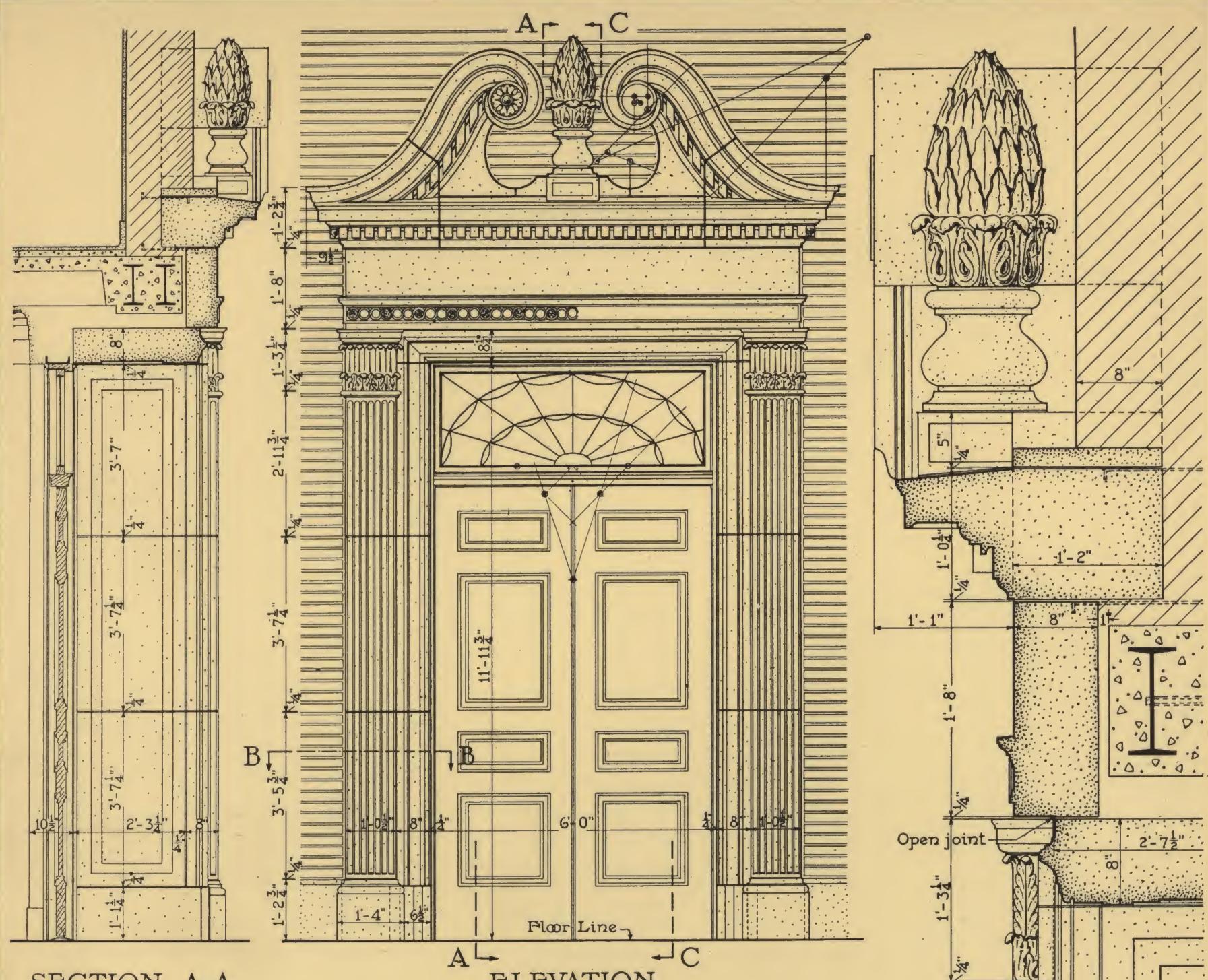
SPANDRELS
Spandrels for Modern Office Buildings
showing Flush and Recessed Treatments

DRAWING #1

Binder File
Classification 51.1

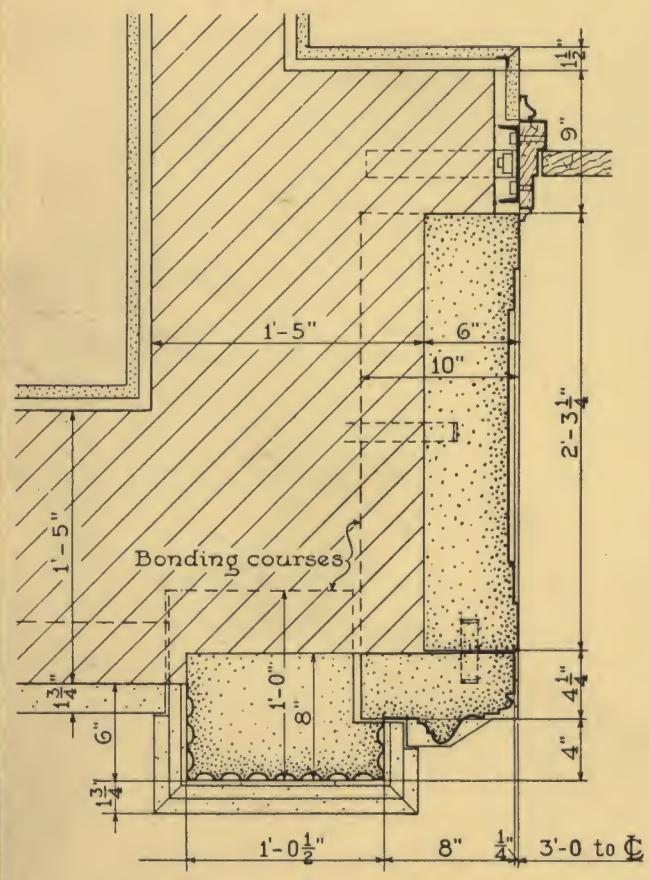


STRUCTURAL DESIGN FOR INDIANA LIMESTONE

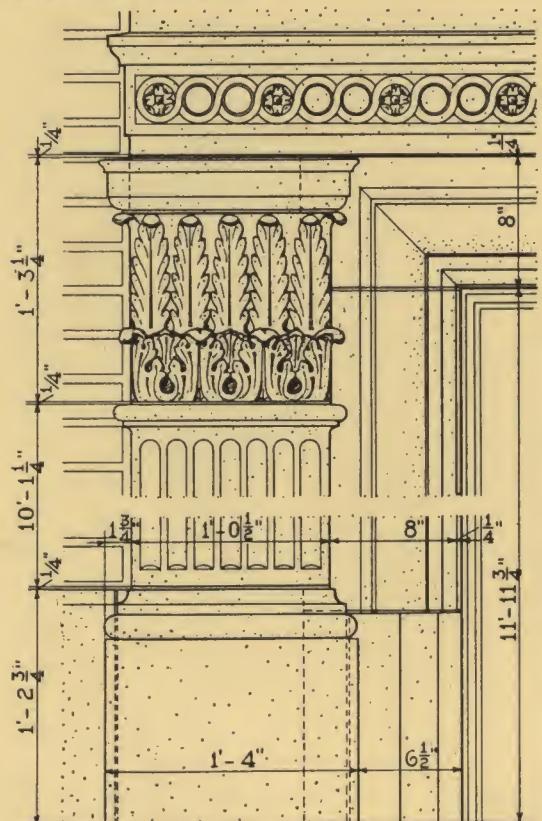


SECTION A-A

ELEVATION



PLAN B-B



ELEVATION OF
BASE AND CAP

SECTION C-C

THE NATION'S
BUILDING
STONE

ENTRANCE
Georgian Colonial Entrance
Feature

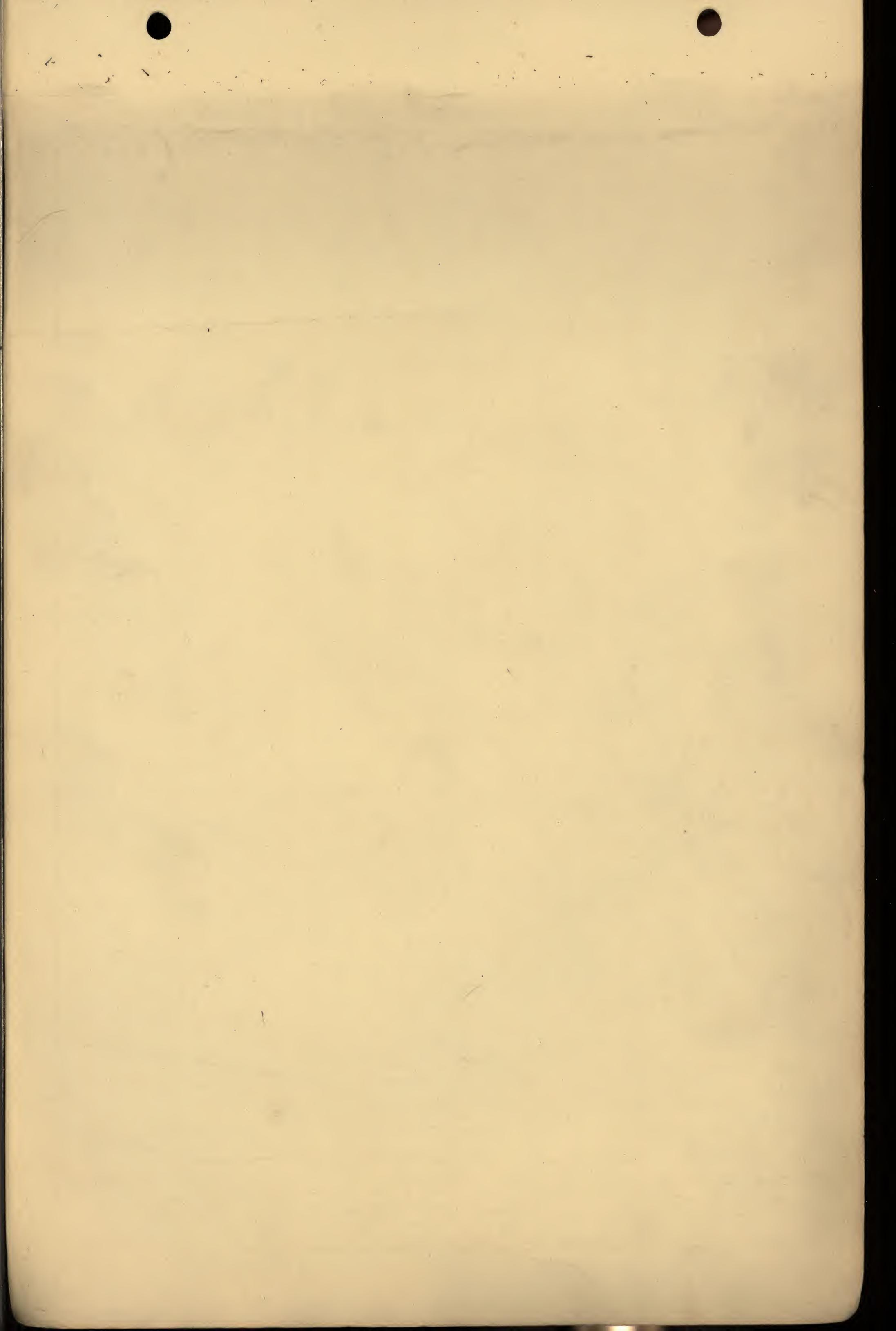
DRAWING #4

Binder File
Classification { 25.1

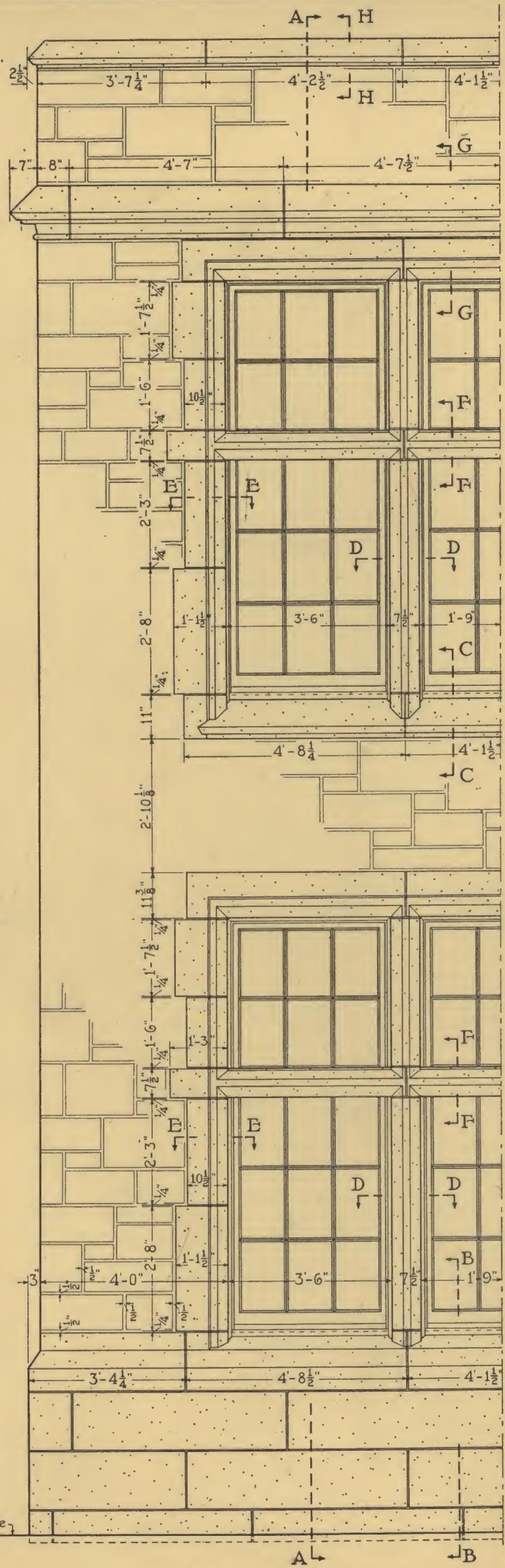
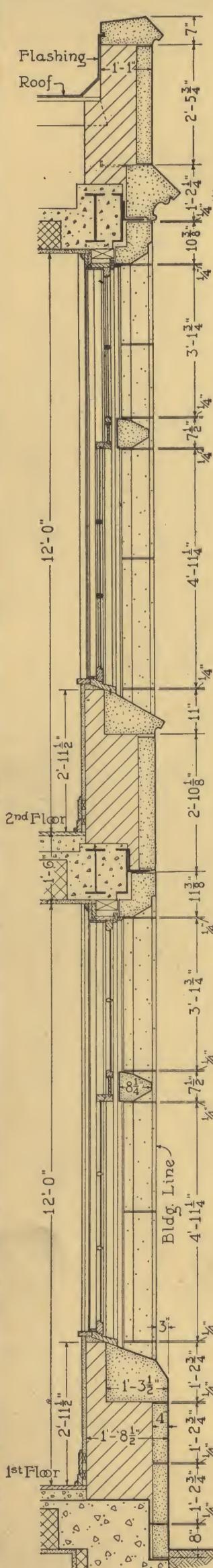
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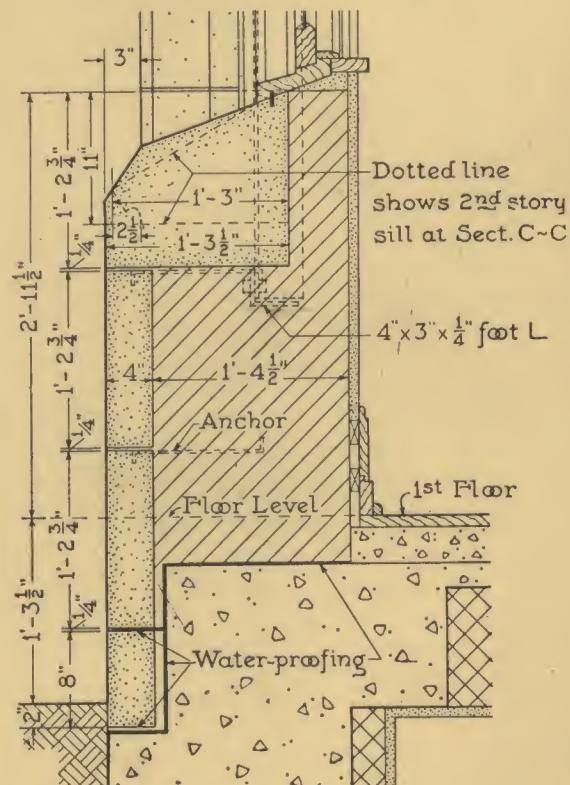
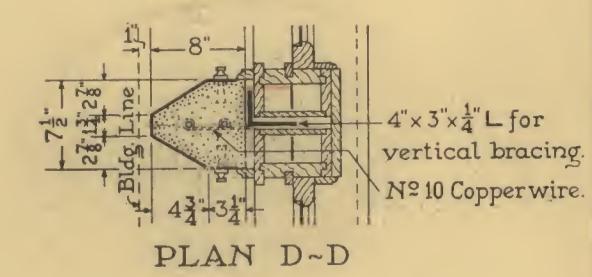
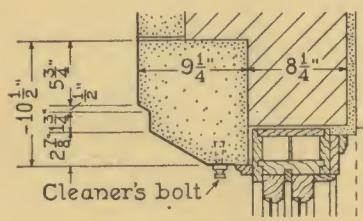
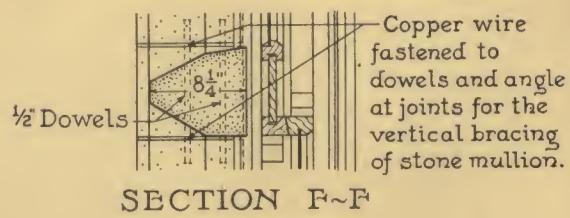
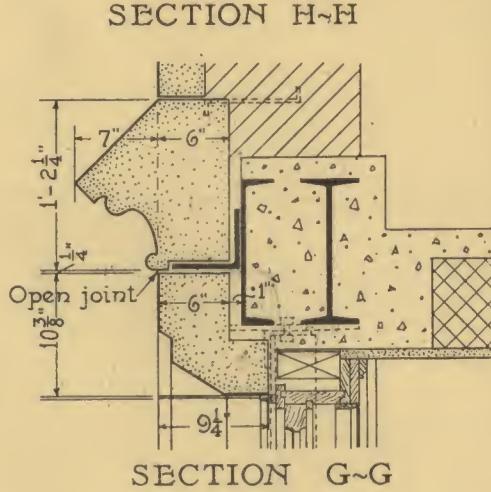
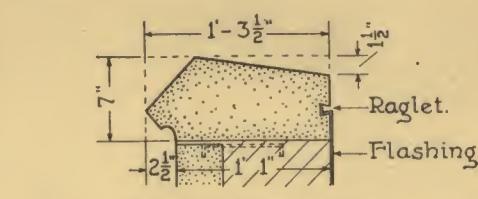


STRUCTURAL DESIGN FOR INDIANA LIMESTONE



SECTION A-A

ELEVATION

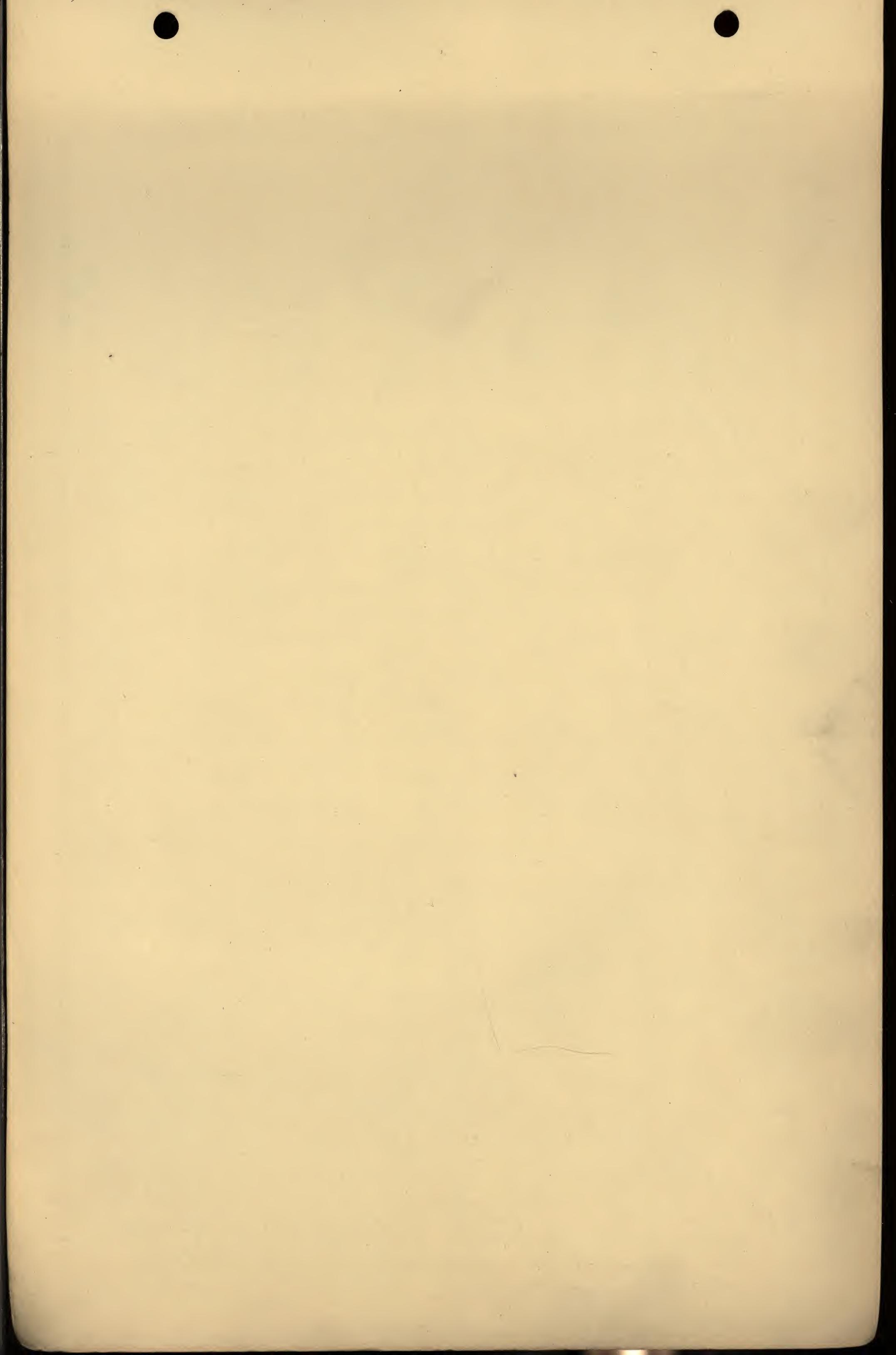


THE NATION'S
BUILDING
STONE

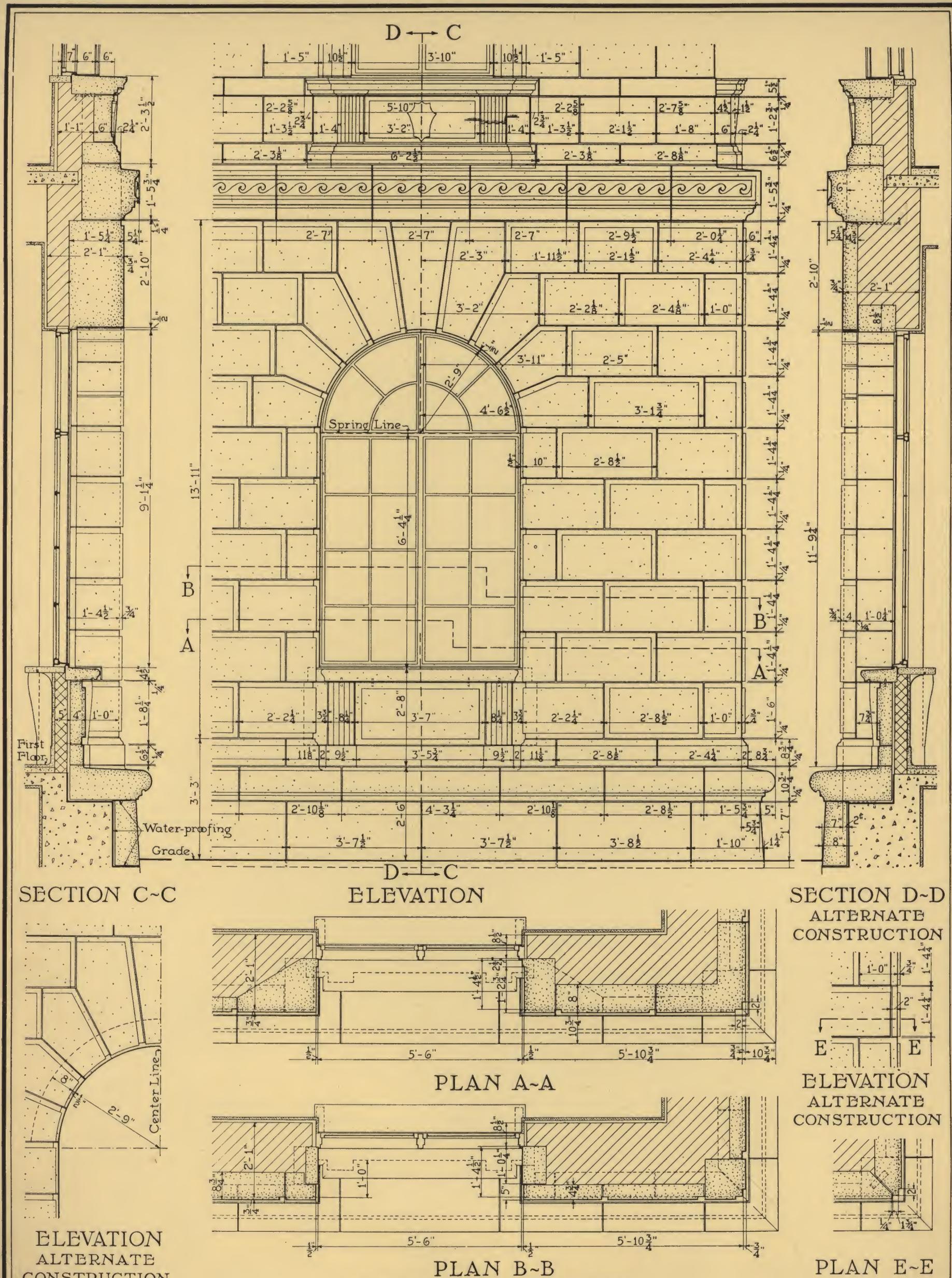
WINDOW TRIM
Grouped Double-hung Windows for
Collegiate Gothic style School Buildings

DRAWING #3

Binder File
Classification 43.1



STRUCTURAL DESIGN FOR INDIANA LIMESTONE



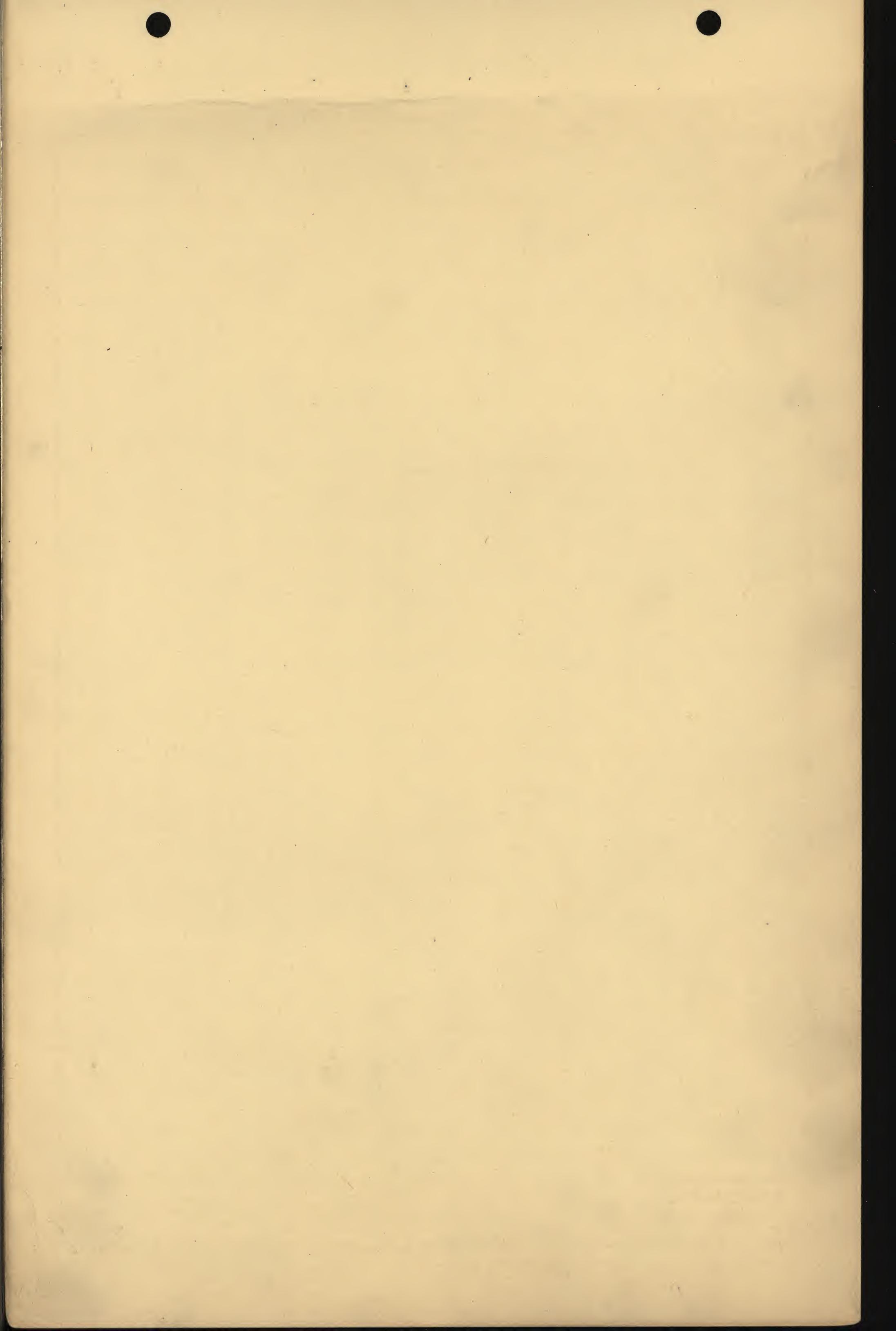
THE NATION'S
BUILDING
STONE

RUSTICATED ASHLAR

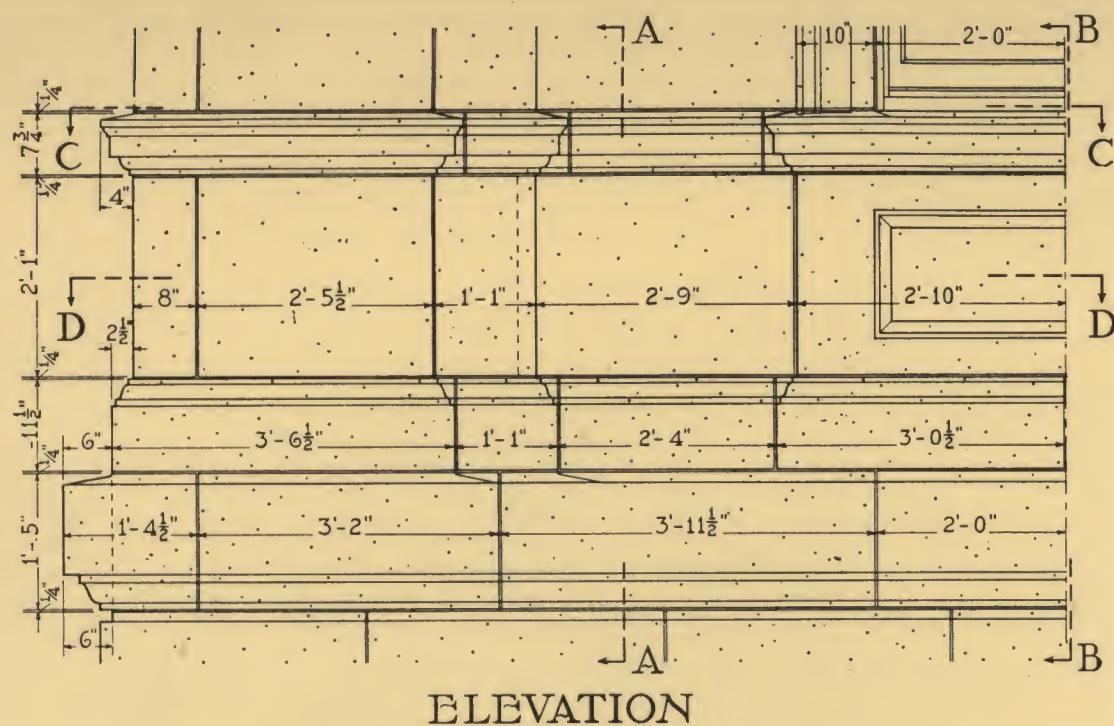
Channel-groove Rusticated Ashlar, in Renaissance style,
showing two types of construction

DRAWING #5

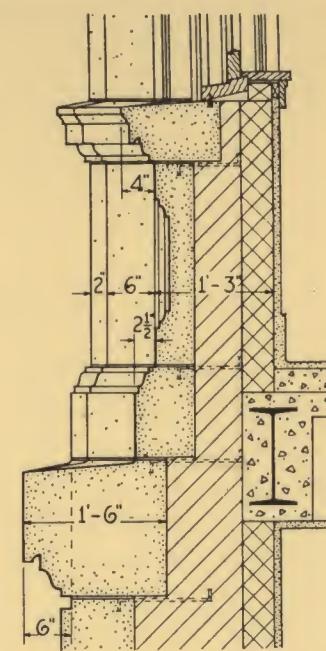
Binder File
Classification 23.1



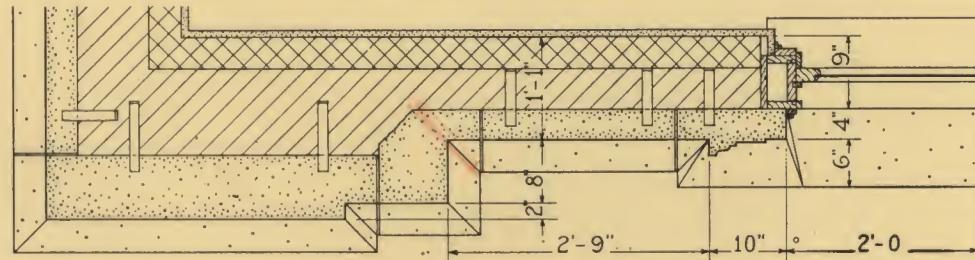
STRUCTURAL DESIGN FOR INDIANA LIMESTONE



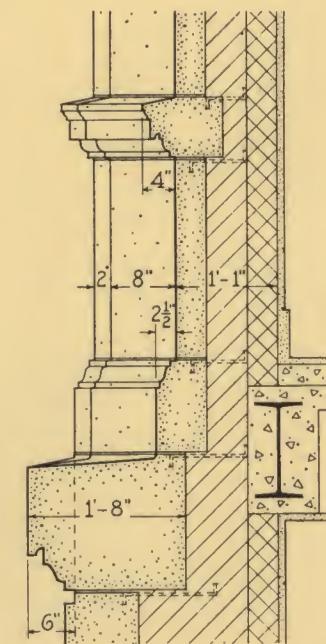
ELEVATION



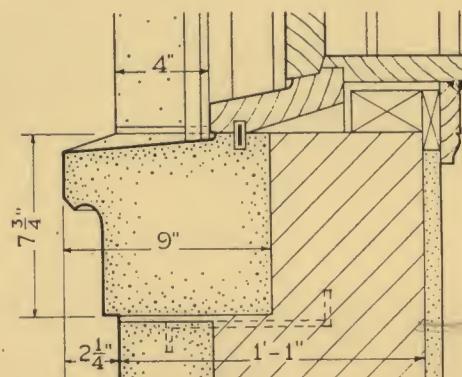
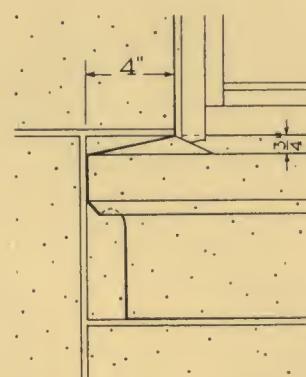
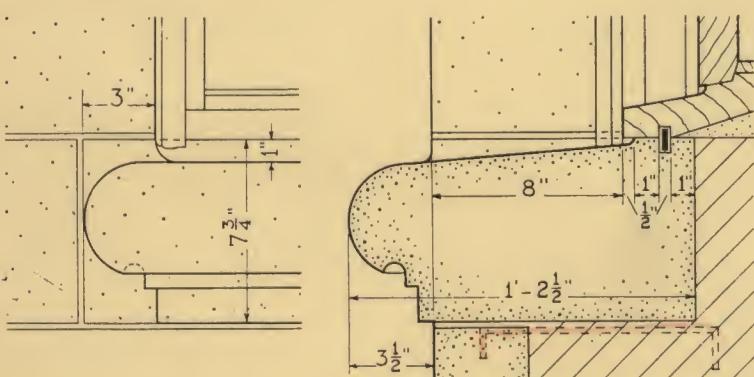
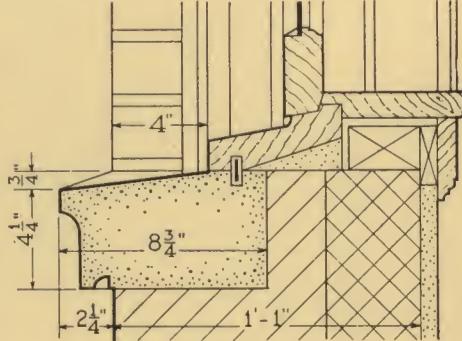
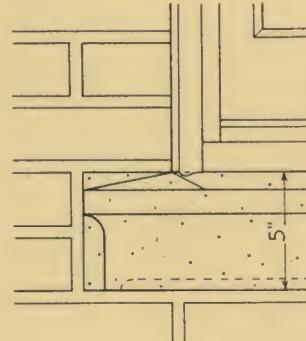
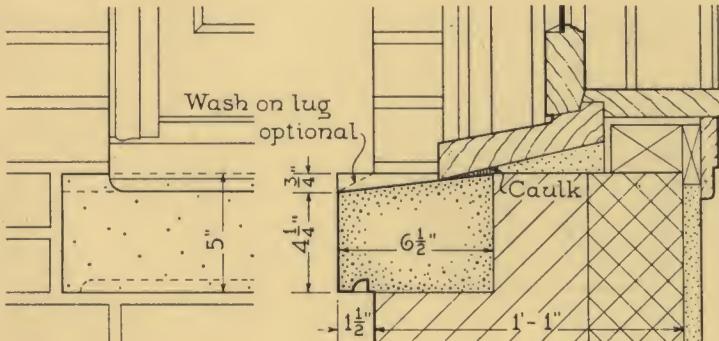
SECTION B-B



PLAN C-C



SECTION A-A



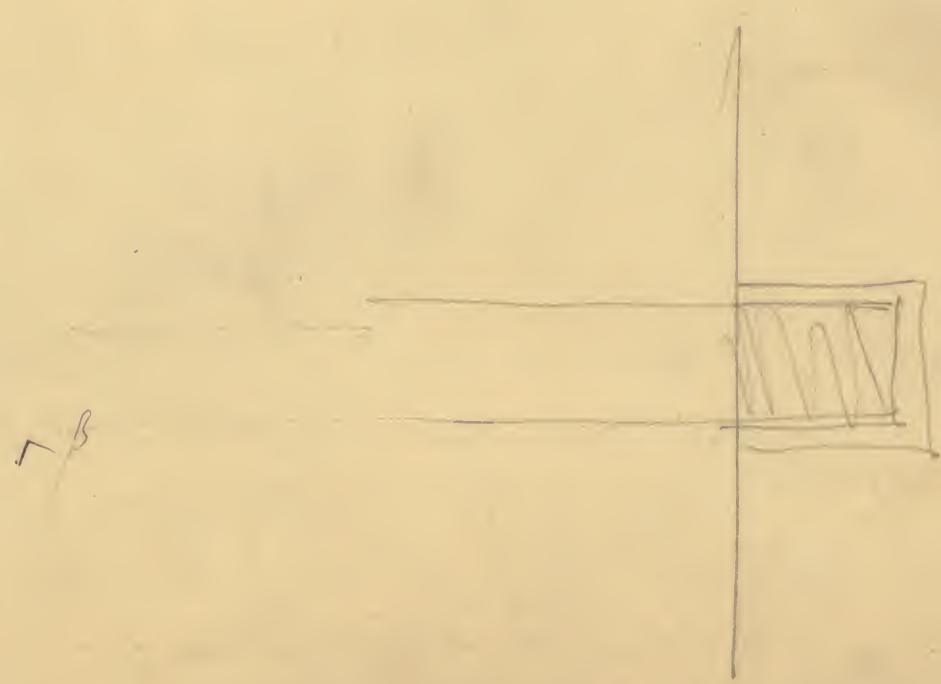
ELEVATIONS & SECTIONS OF ISOLATED WINDOW SILLS.

THE NATION'S
BUILDING
STONE

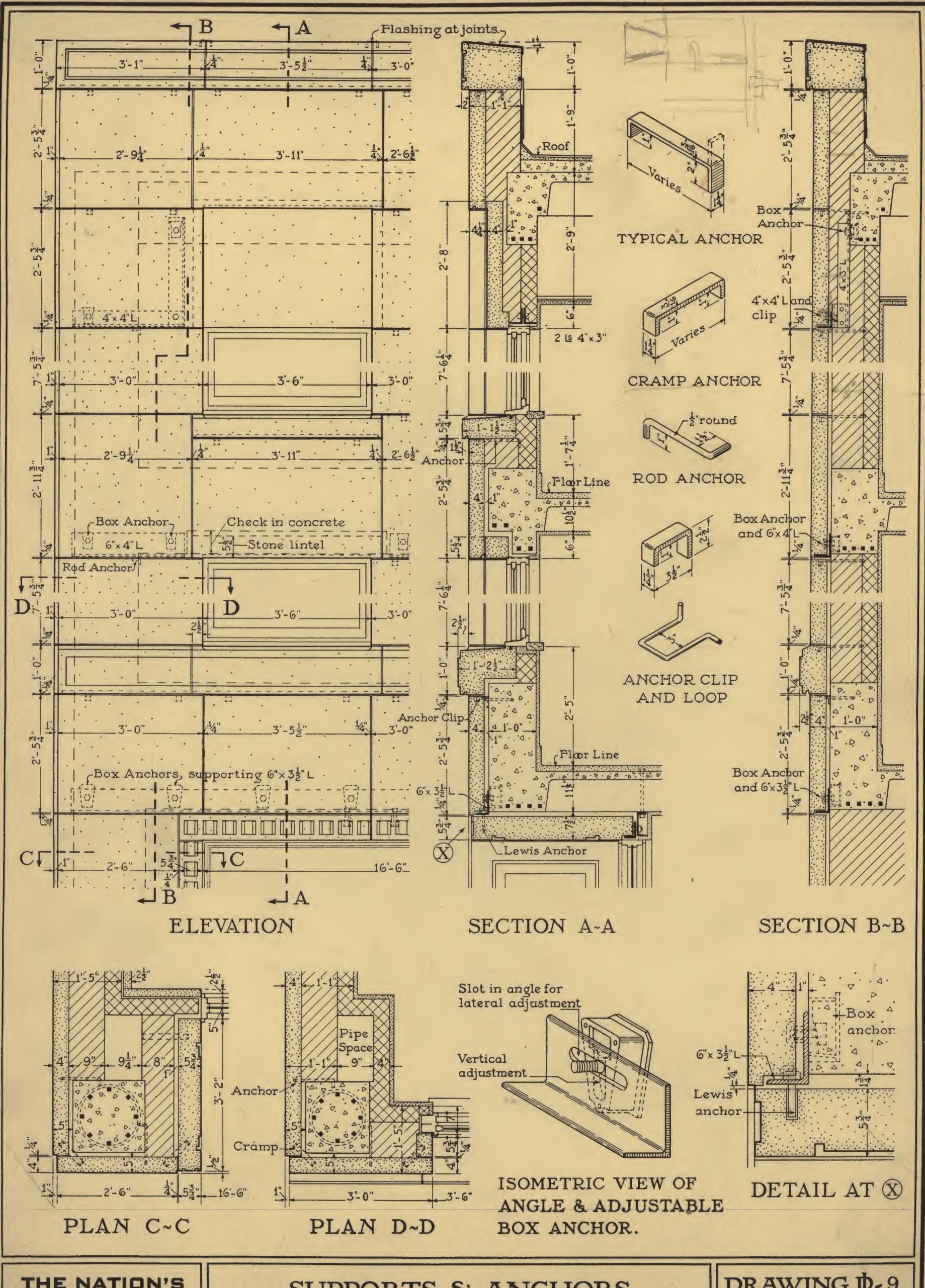
WINDOW SILLS
Belt Courses and Sills for Wood Frame Windows

DRAWING #7

Binder File
Classification 86.1



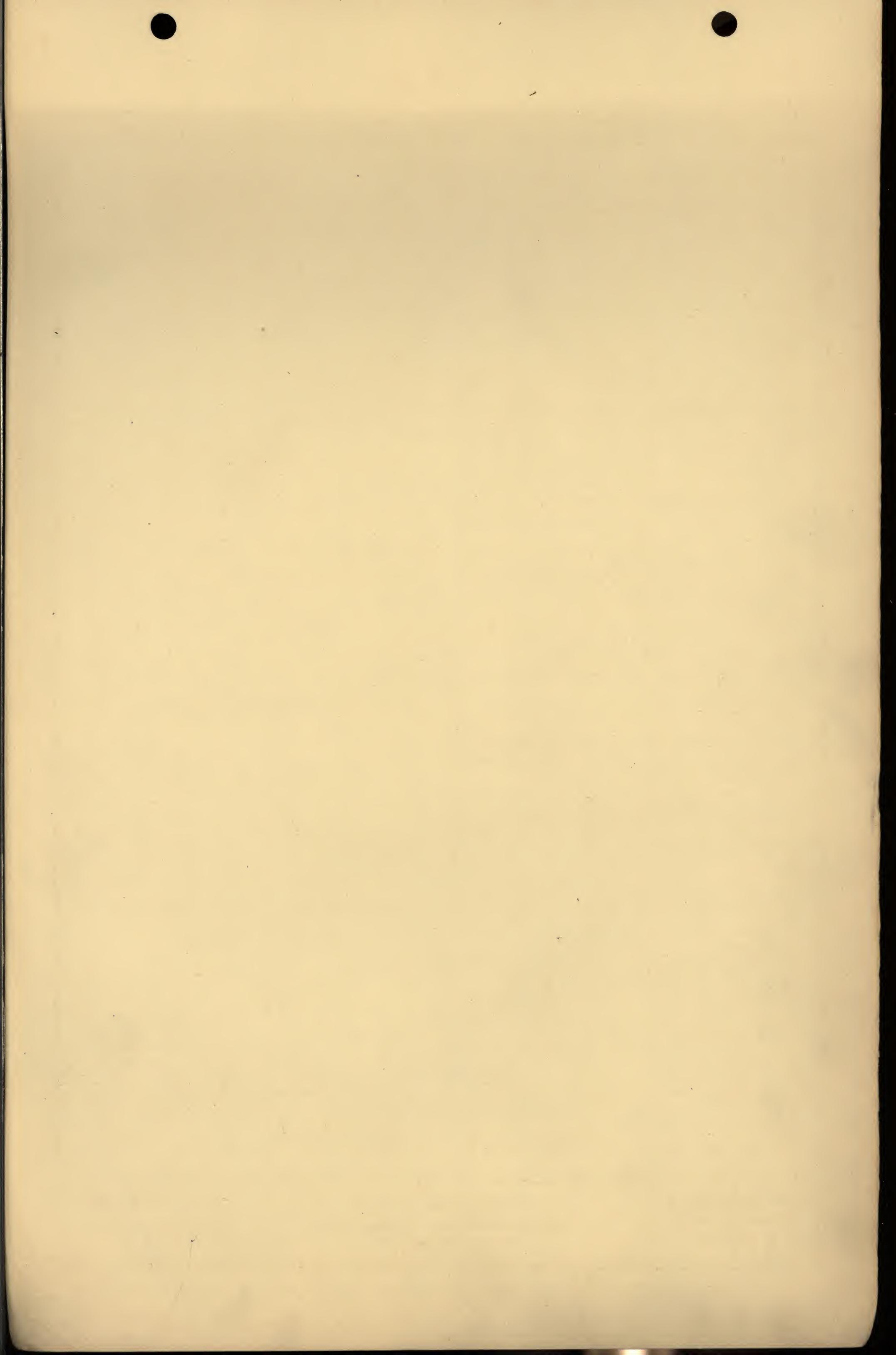
STRUCTURAL DESIGN FOR INDIANA LIMESTONE



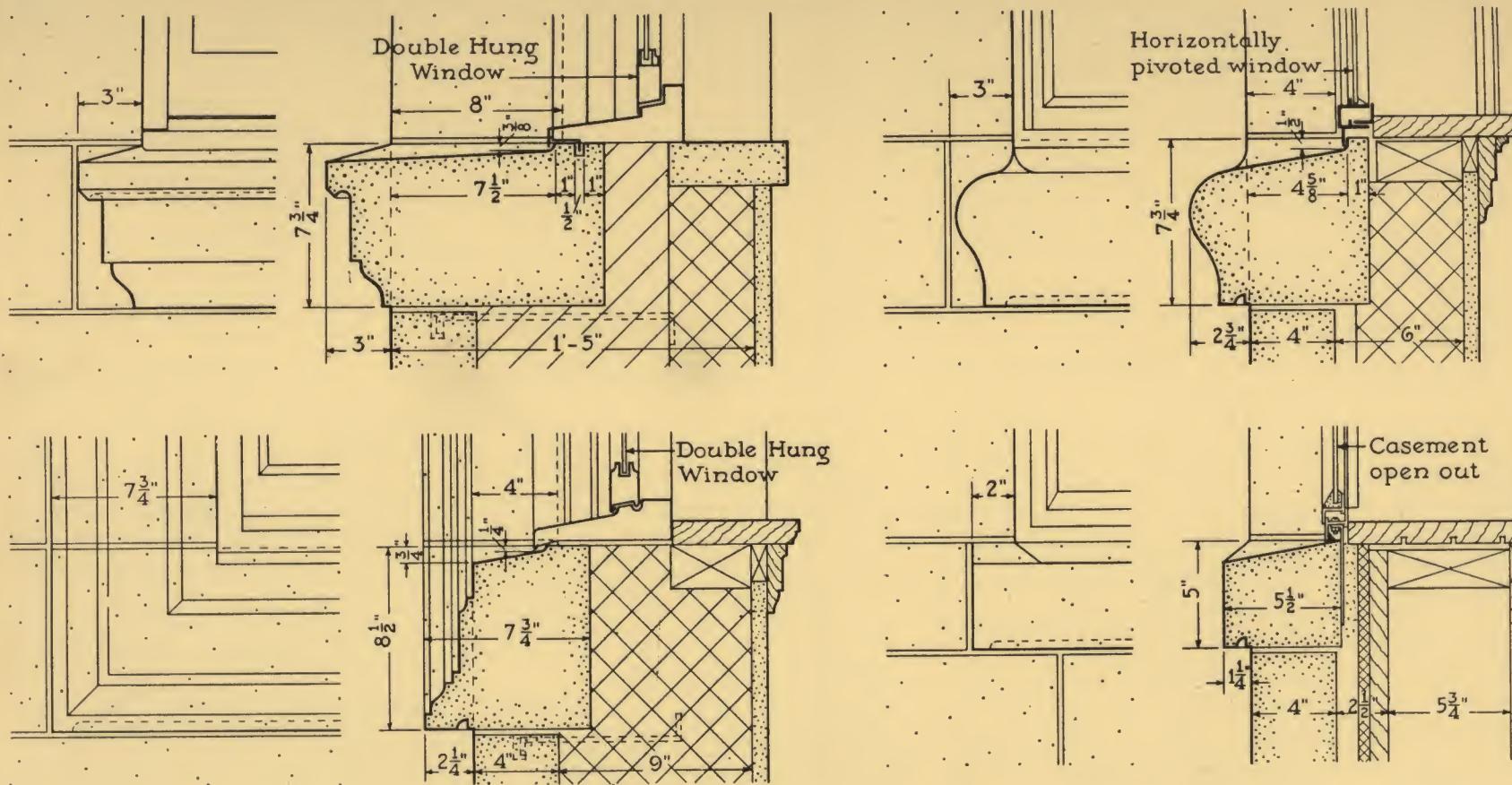
THE NATION'S
BUILDING
STONE

SUPPORTS & ANCHORS
Recommended practice for Reinforced
Concrete Construction

DRAWING #9
Binder File Classification 82.1

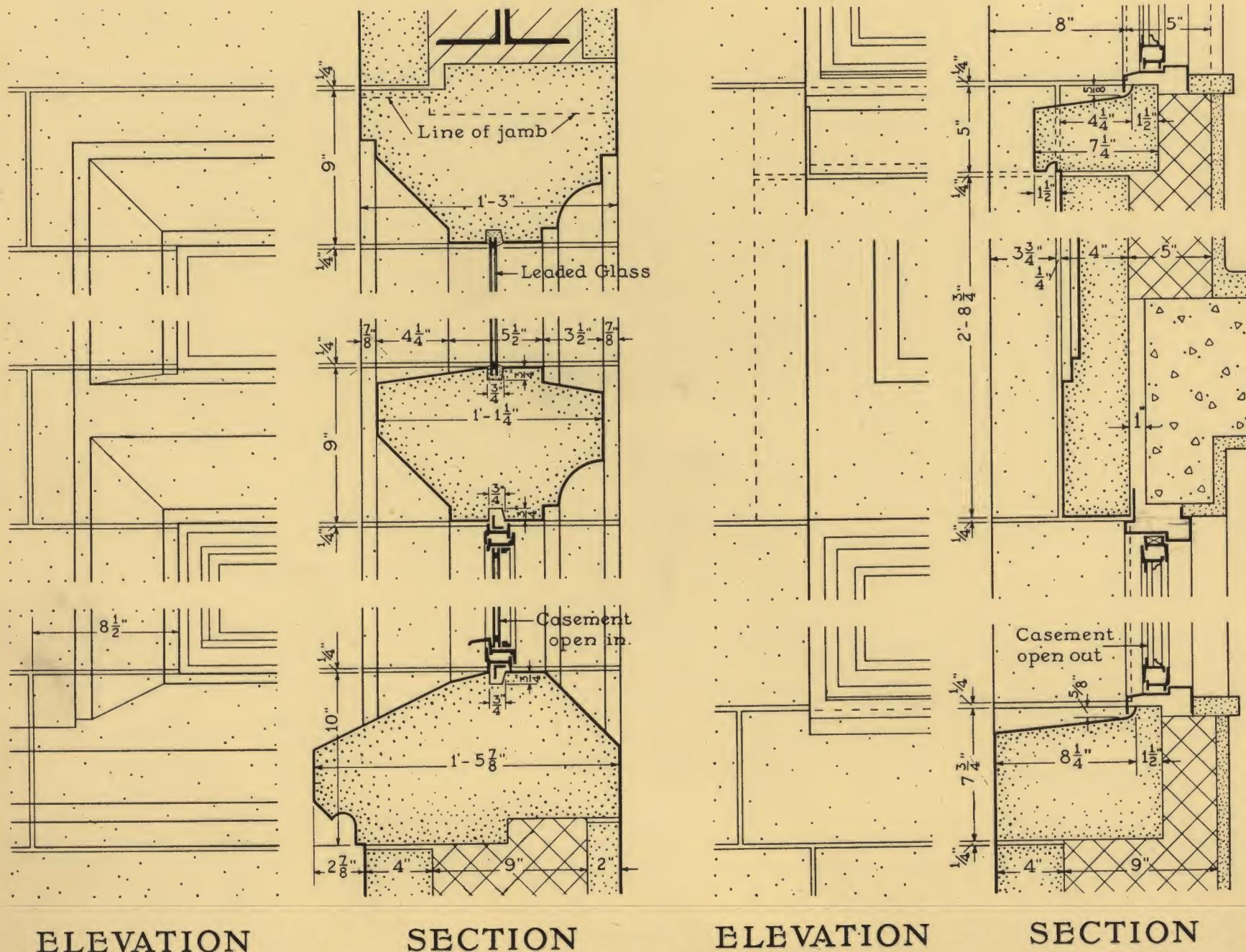


STRUCTURAL DESIGN FOR INDIANA LIMESTONE



ELEVATIONS & SECTIONS OF WINDOW SILLS

Note: Details of sills are governed by the type of steel windows used.



ELEVATION

SECTION

ELEVATION

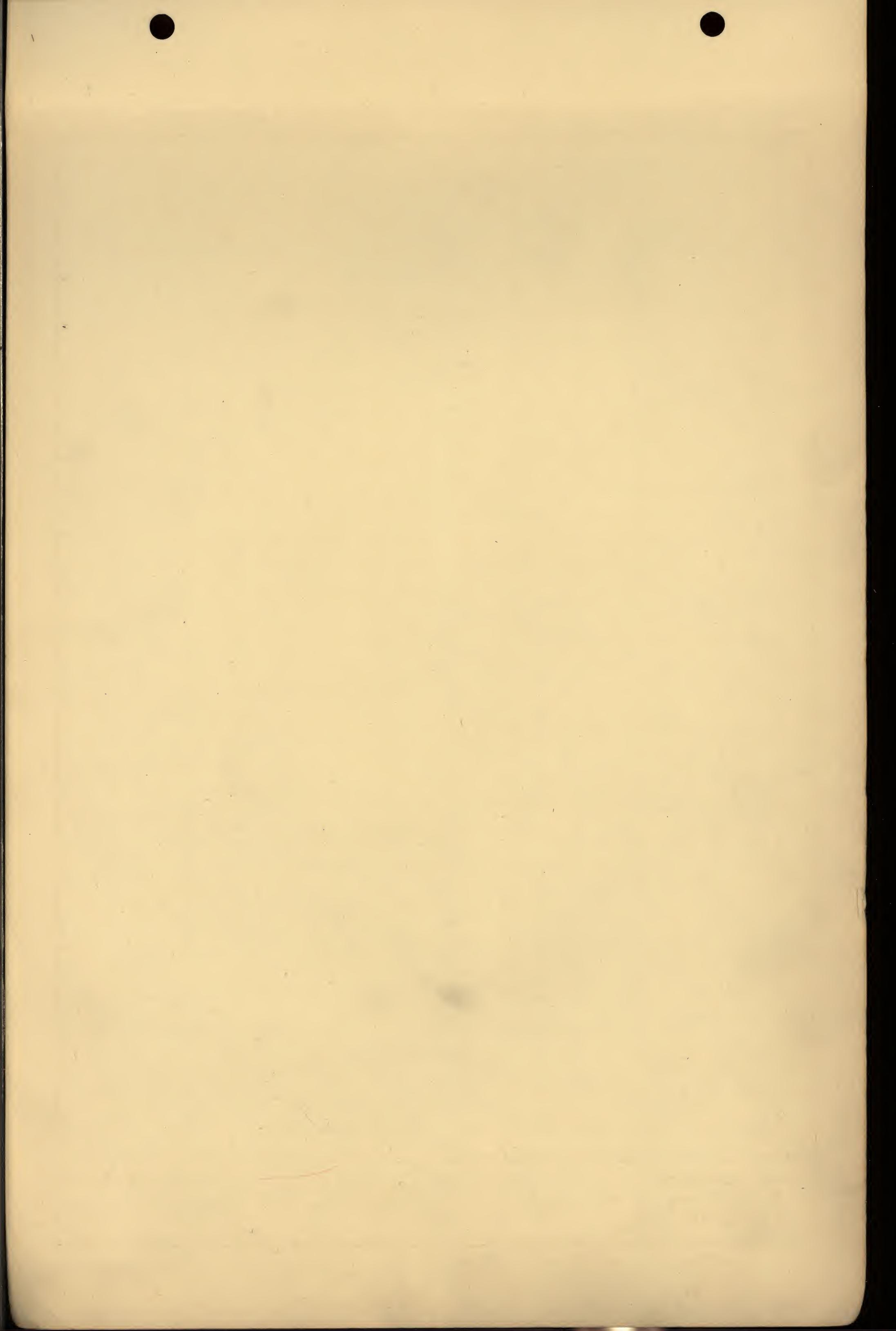
SECTION

THE NATION'S
BUILDING
STONE

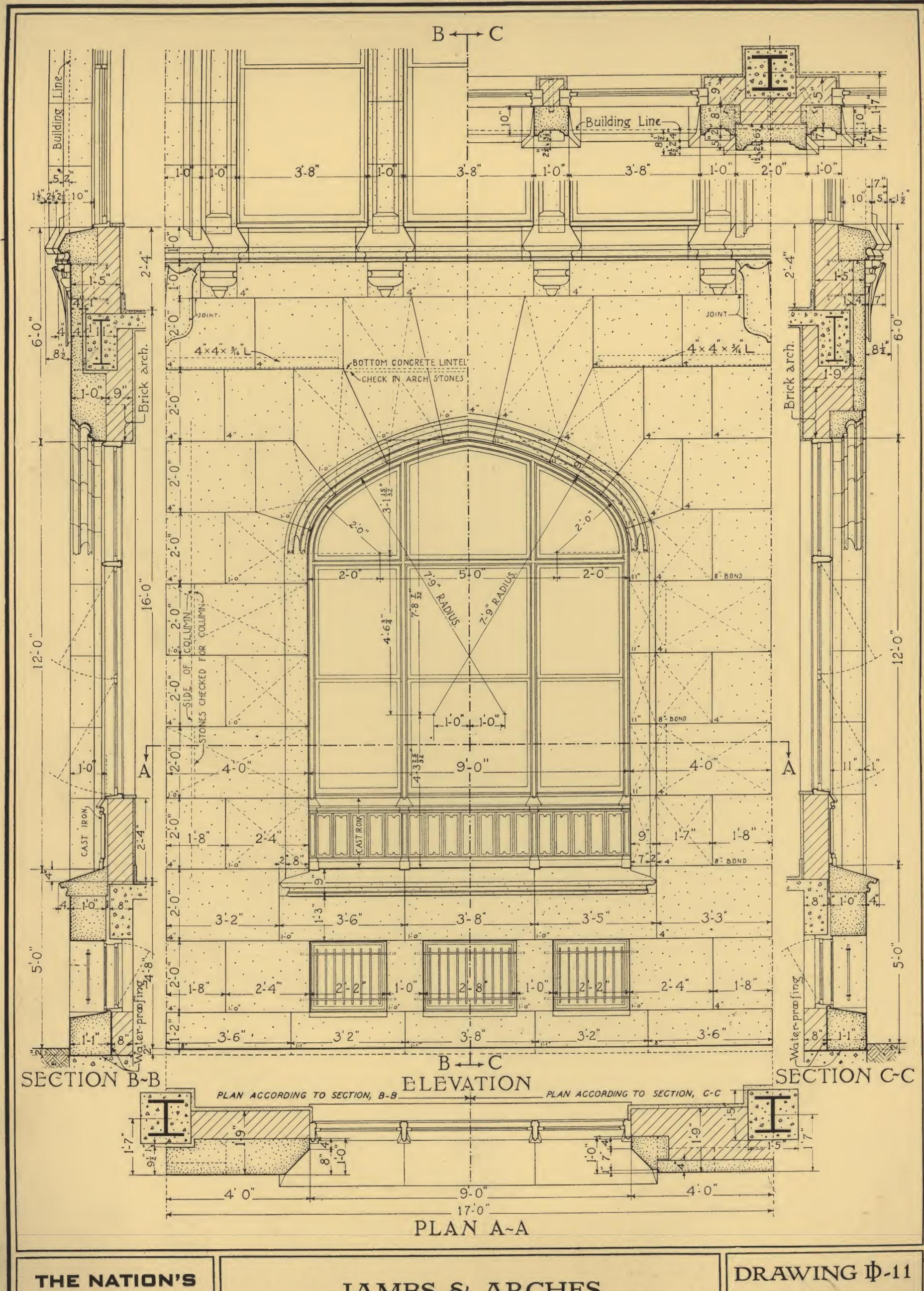
WINDOW TRIM
Sills, Jambs and Lintels for Metal Frame
Windows

DRAWING #10

Binder File } 86.2
Classification }



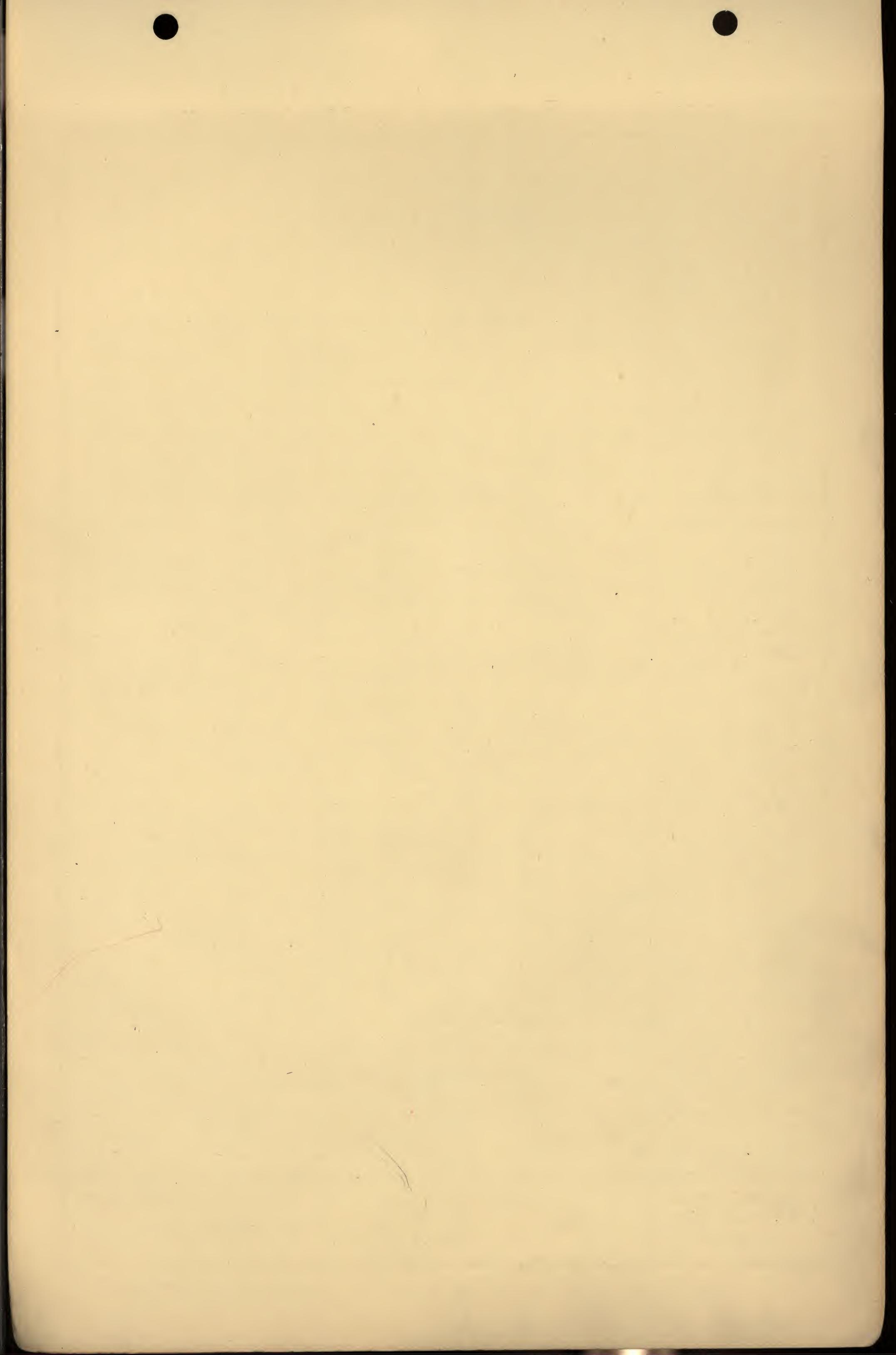
STRUCTURAL DESIGN FOR INDIANA LIMESTONE



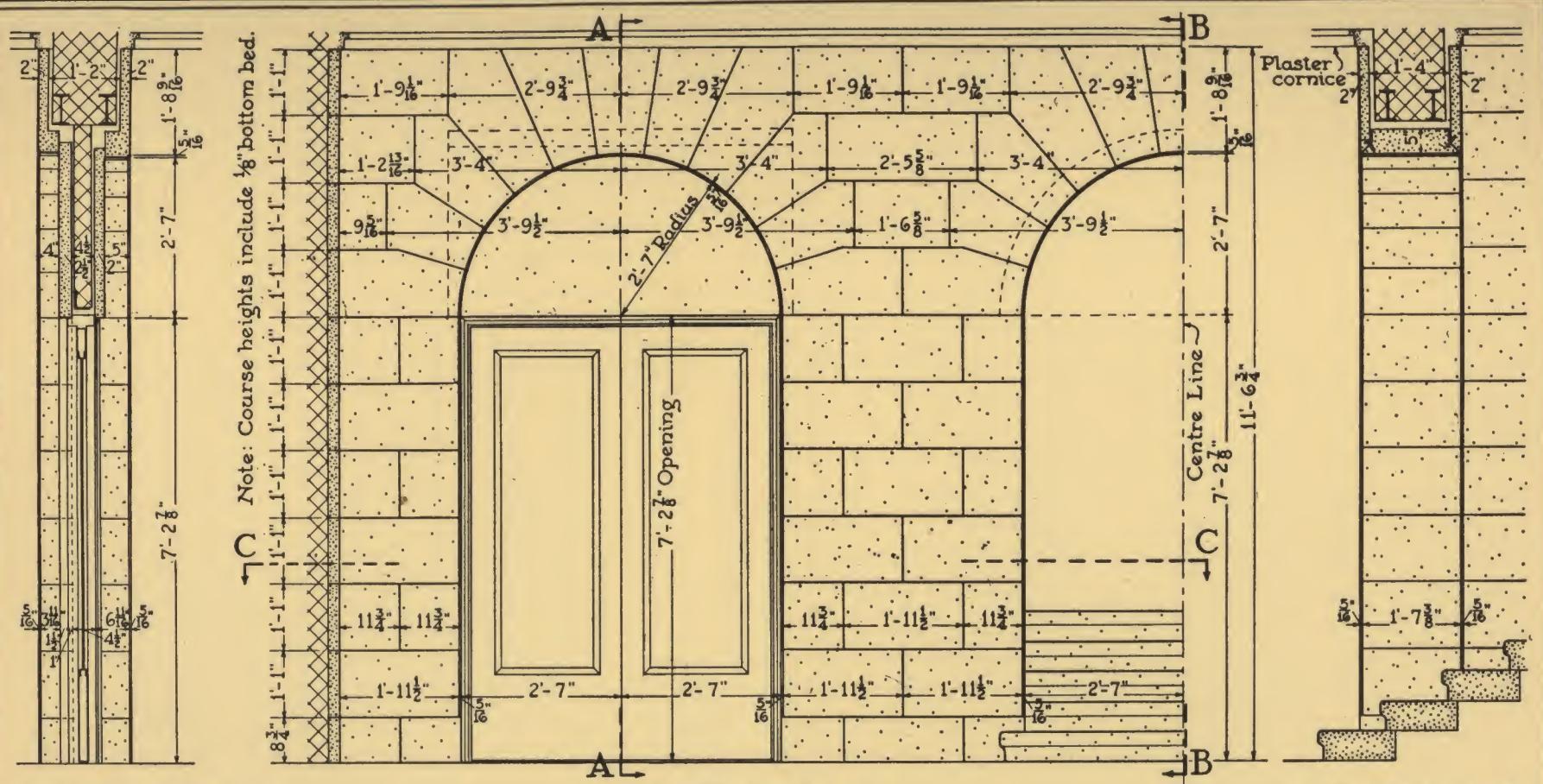
THE NATION'S
BUILDING
STONE

JAMBS & ARCHES
Showing two types of Construction

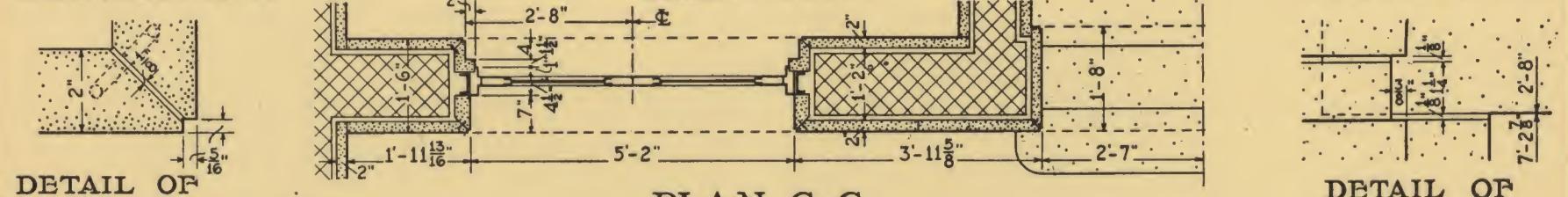
DRAWING #11
Binder File 85.1
Classification



STRUCTURAL DESIGN FOR INDIANA LIMESTONE

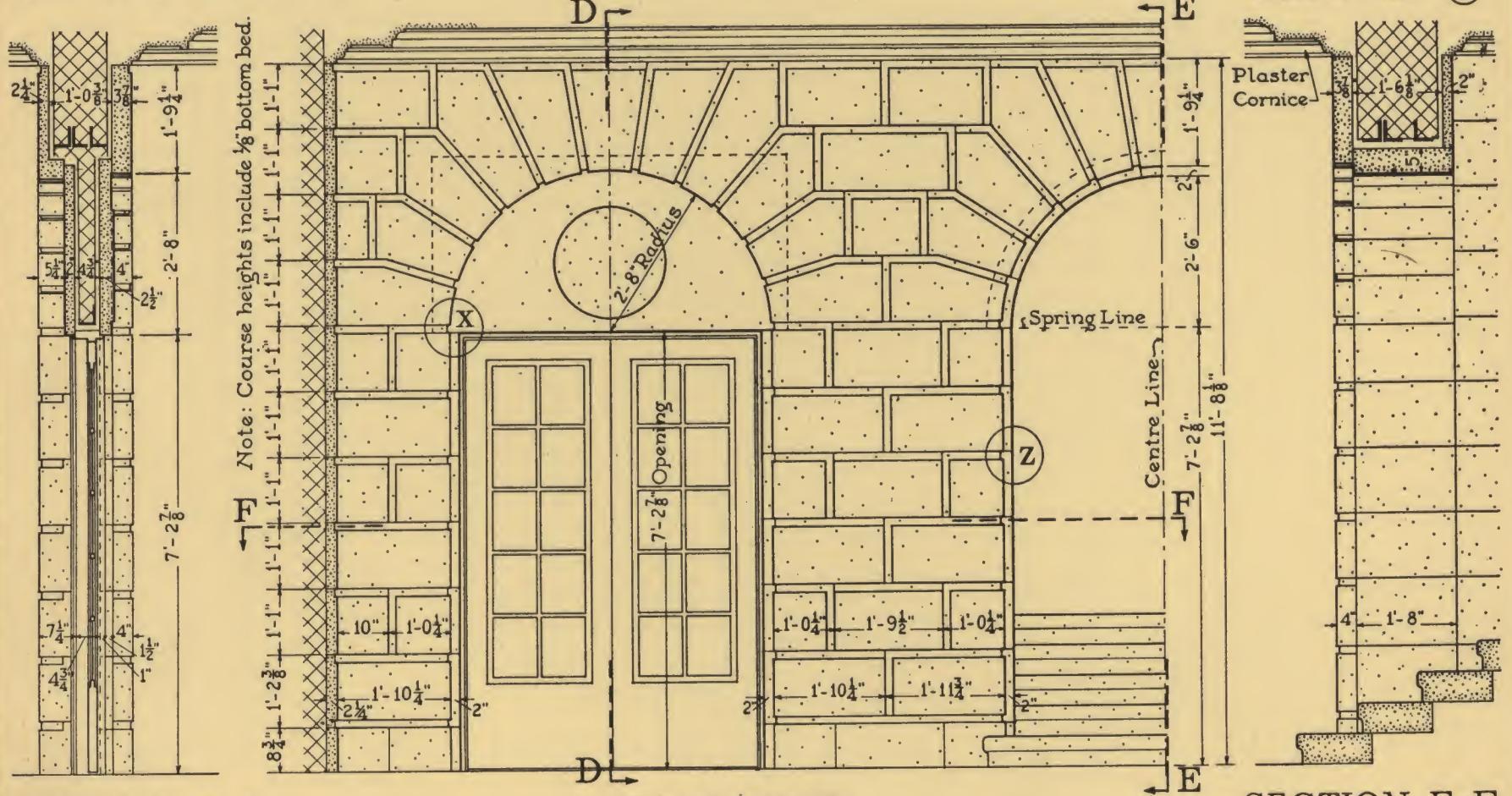


SECTION A-A

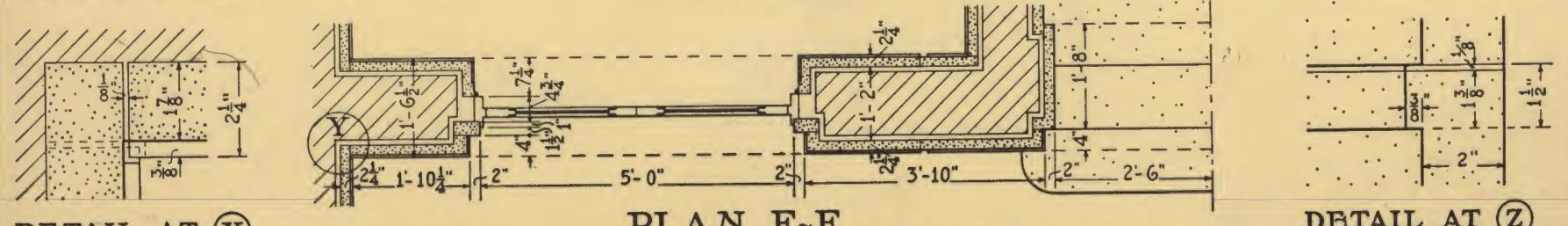


16 XEN
DETAIL OF
QUIRK MITER JOINT

PLAN C-C



SECTION D-D



DETAIL AT (Y)

PLAN F~F

DETAIL AT (Z)

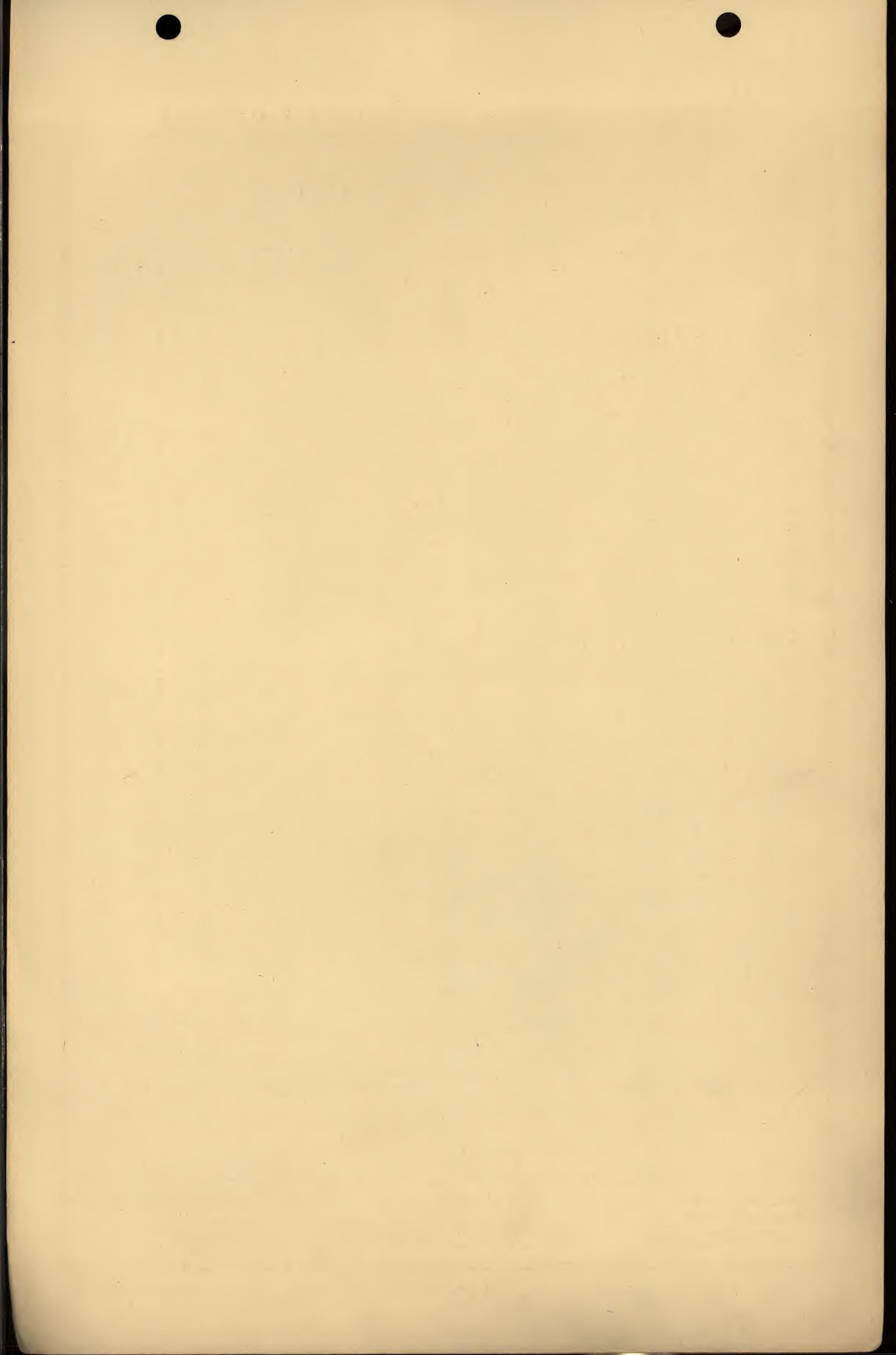
THE NATION'S BUILDING STONE

INTERIORS

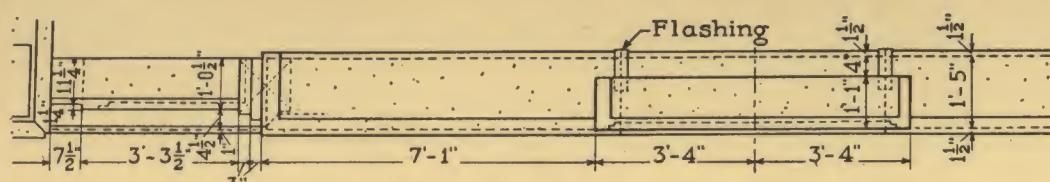
Interior facing showing Plain and Rusticated Treatment

DRAWING Φ-13

Binder File Classification } 91.1

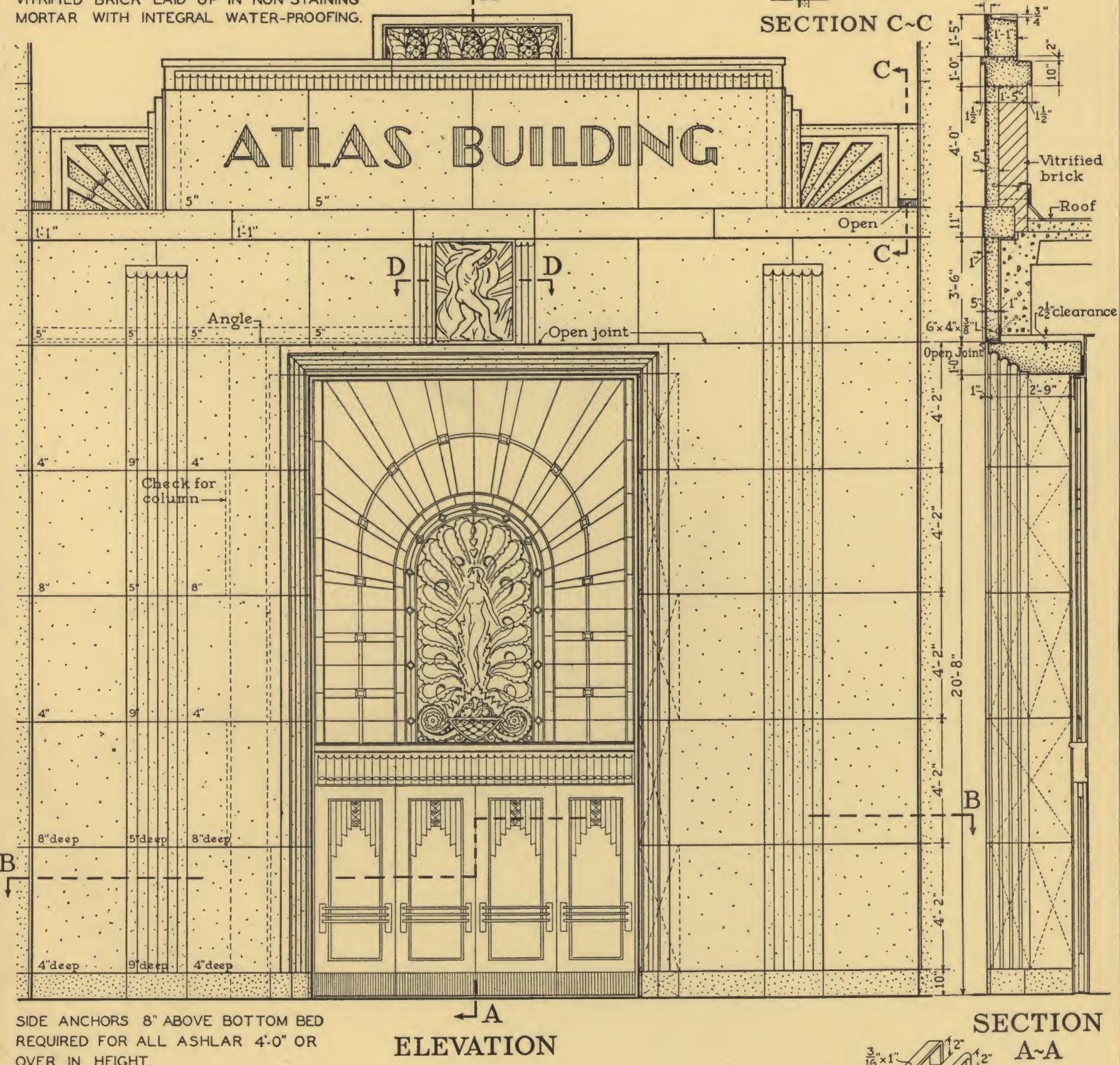


STRUCTURAL DESIGN FOR INDIANA LIMESTONE

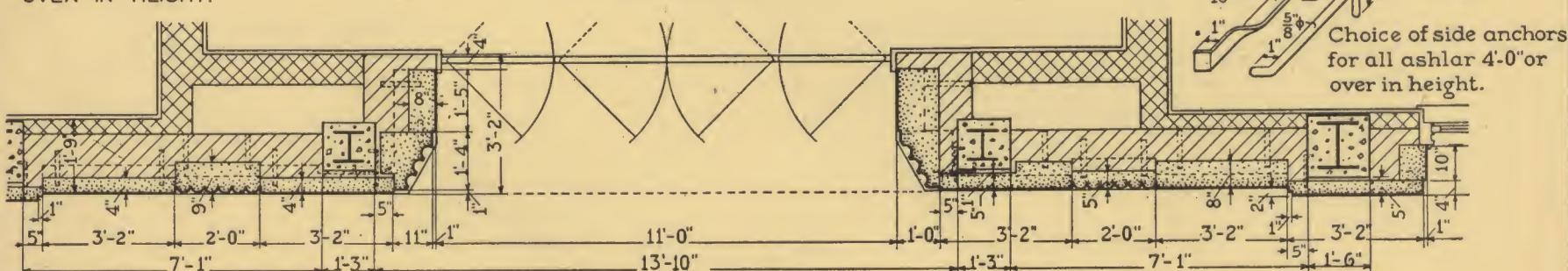


PART PLAN OF PARAPET

FOR ENTIRE BACKING ABOVE ROOF, USE VITRIFIED BRICK LAID UP IN NON-STAINING MORTAR WITH INTEGRAL WATER-PROOFING.



ELEVATION



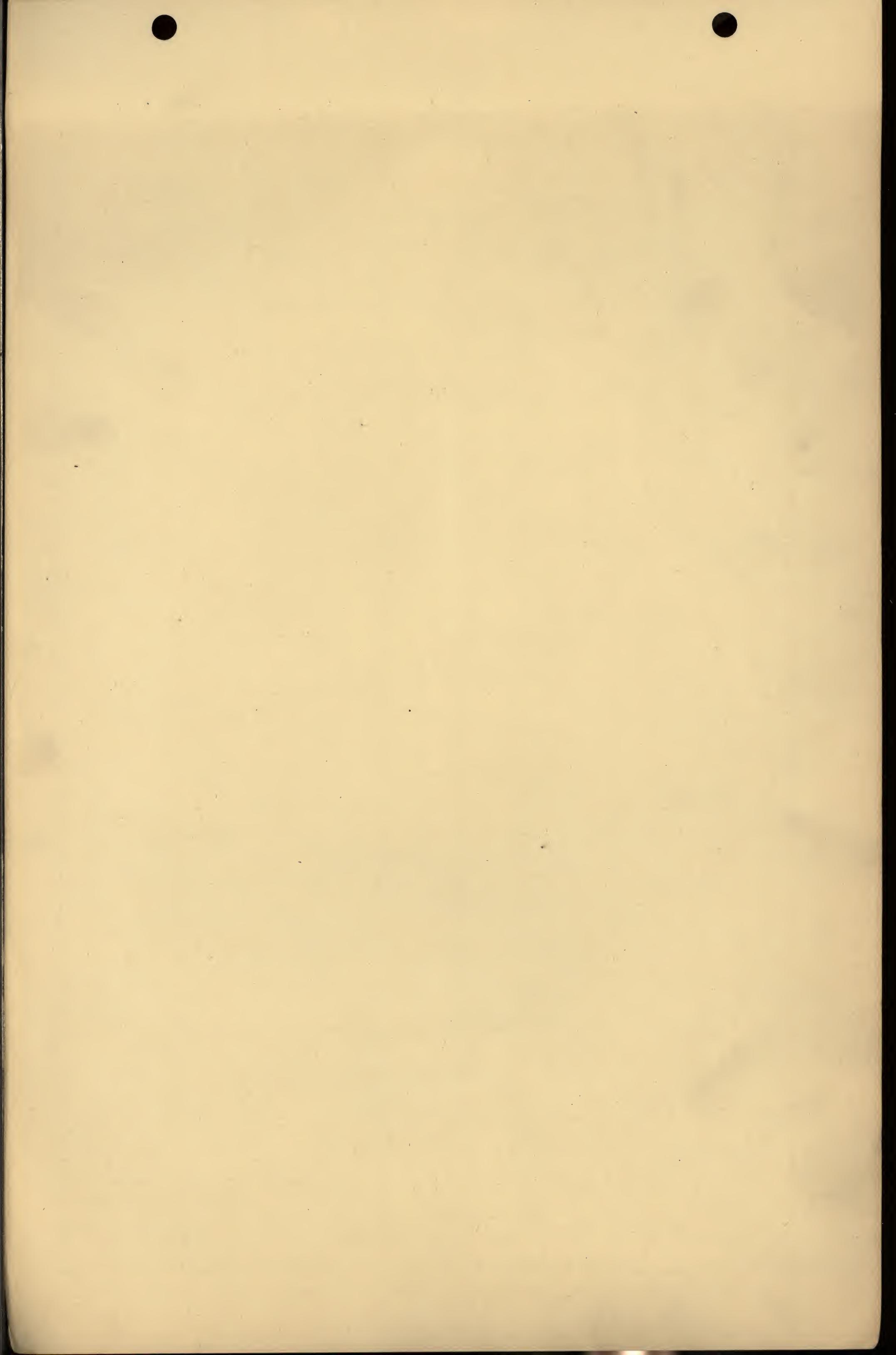
PLAN B-B

THE NATION'S
BUILDING
STONE

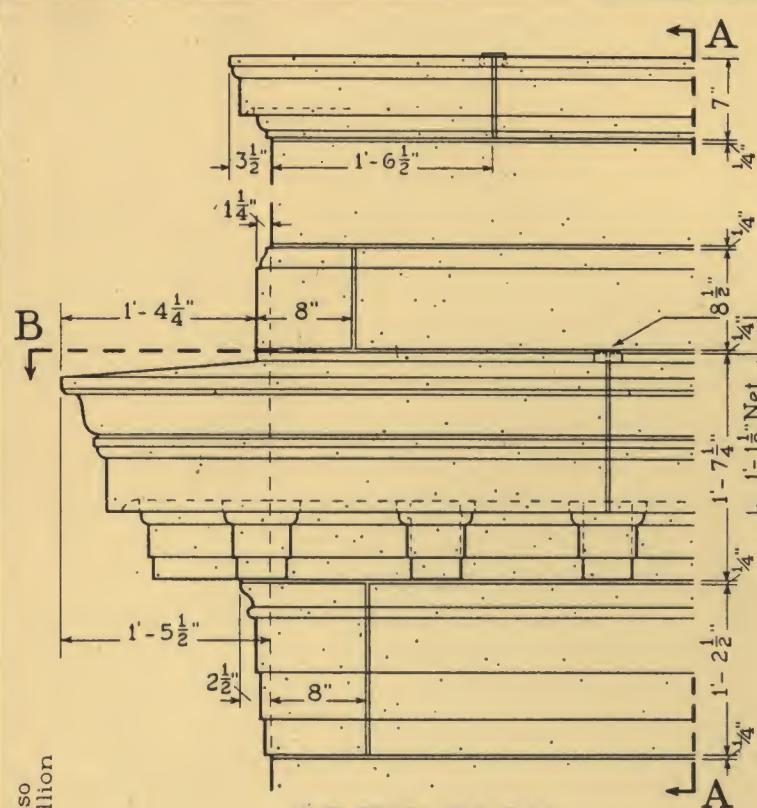
ENTRANCE
Recommended construction for
Entrance of Modern Office Building.

DRAWING #14

Binder File
Classification } 51.2

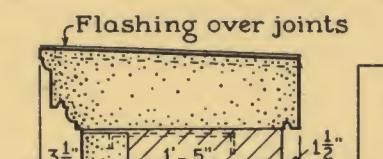


STRUCTURAL DESIGN FOR INDIANA LIMESTONE

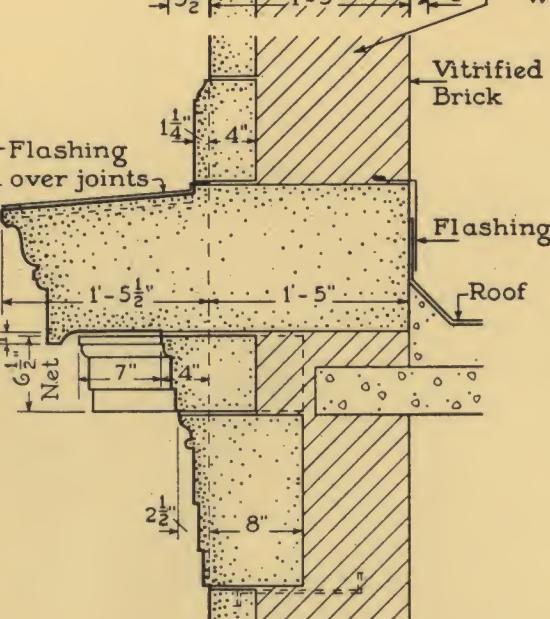


ELEVATION

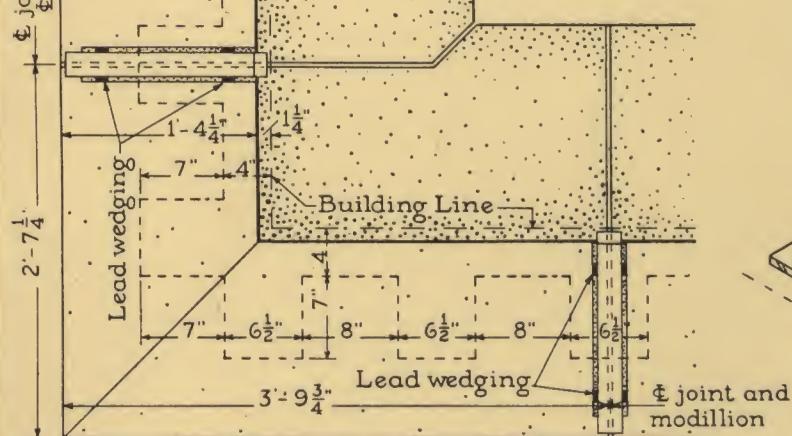
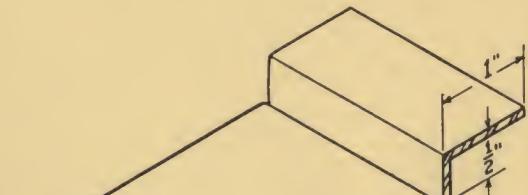
Flashing over joints



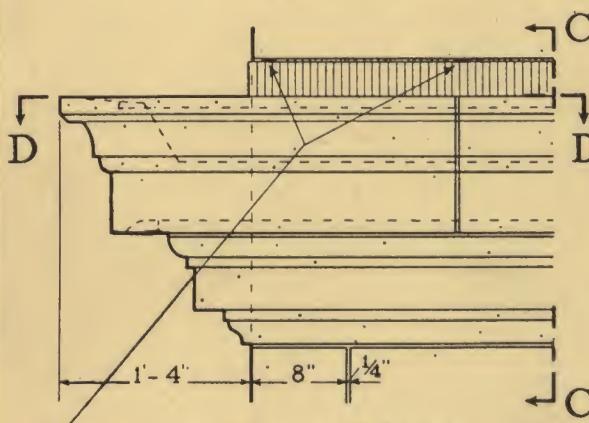
The entire brick backing of exposed parapets should be vitrified brick, laid up in non-staining cement mortar with integral water-proofing.



SECTION OF RAGLET
(with flashing in place.)



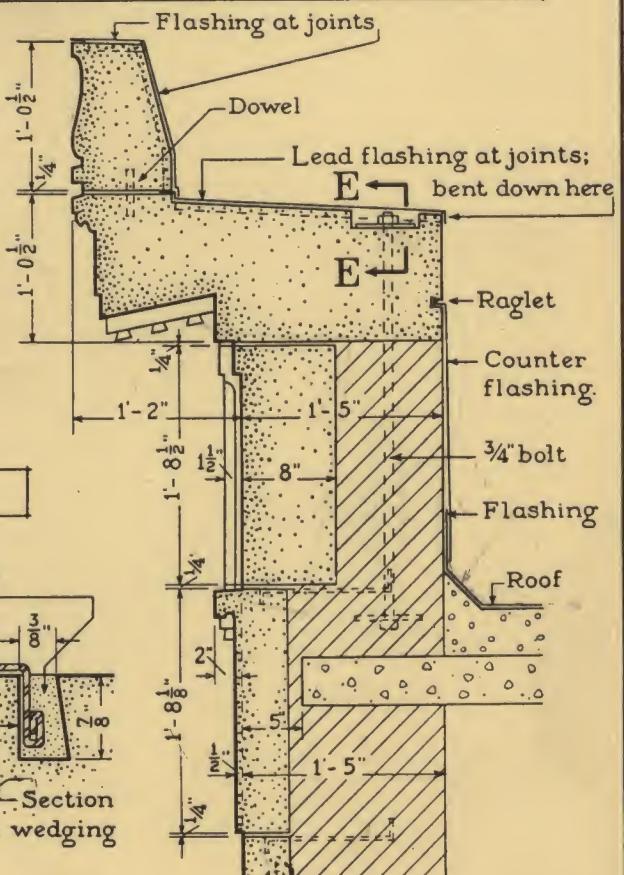
PLAN AT LEVEL 'B'



ELEVATION

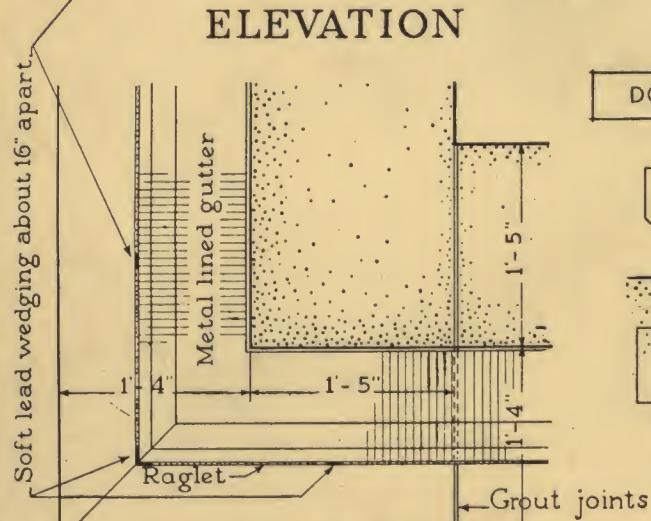
ALL FLASHING FASTENED INTO RAGLETS OR JOINTS WITH SOFT LEAD WEDGING
ABOUT 16" APART. FILL WITH ELASTIC CALKING COMPOUND.

SECTION C-C



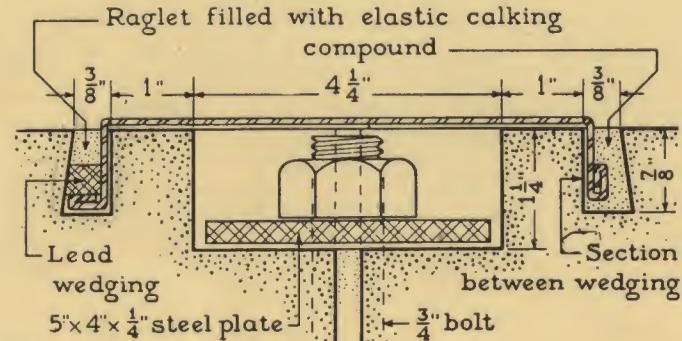
SECTION C-C

SECTION E-E



PLAN D-D

DO NOT USE MOLTEN LEAD IN RAGLETS



SECTION

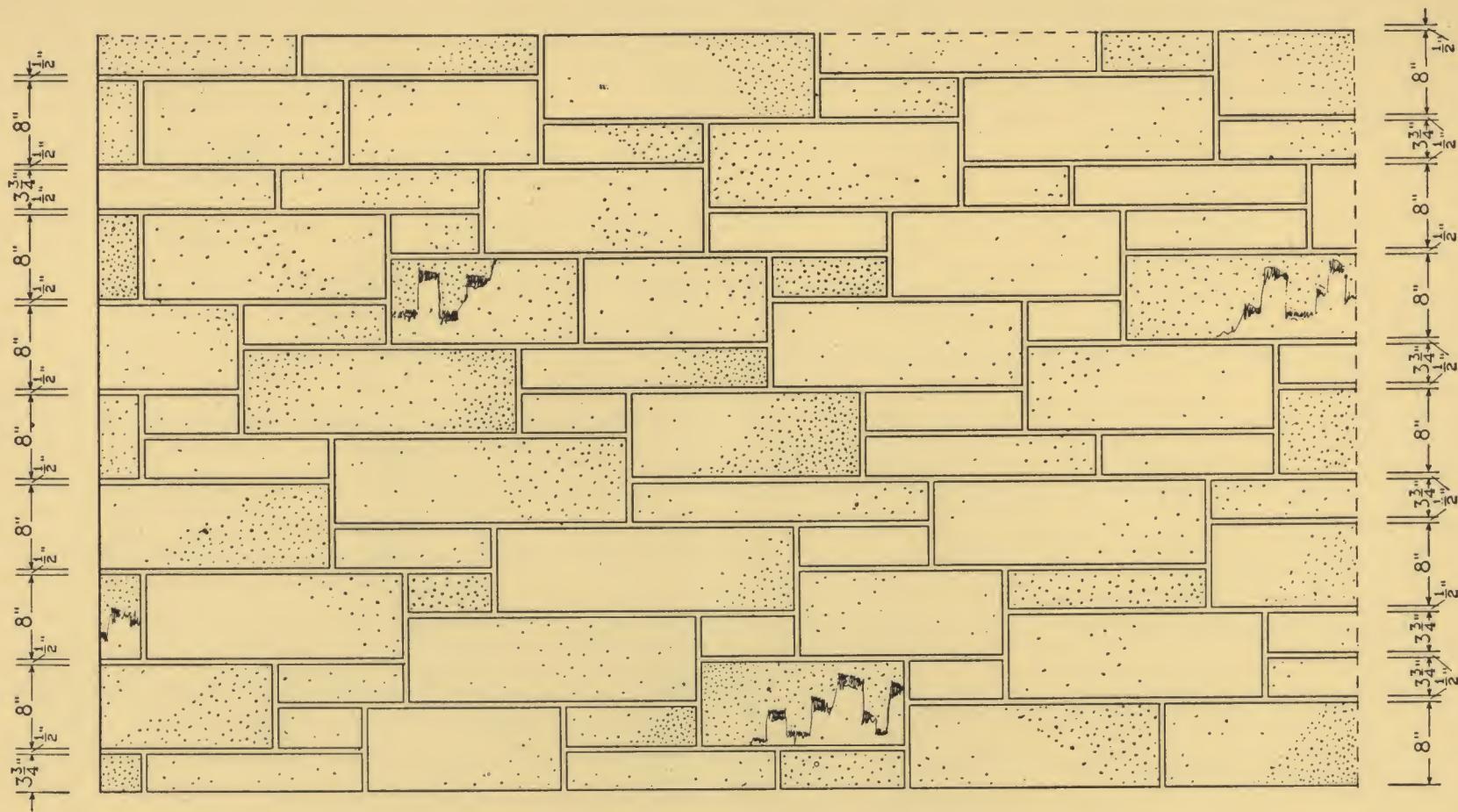
THE NATION'S
BUILDING
STONE

FLASHING
Cornices, Gutters and Copings

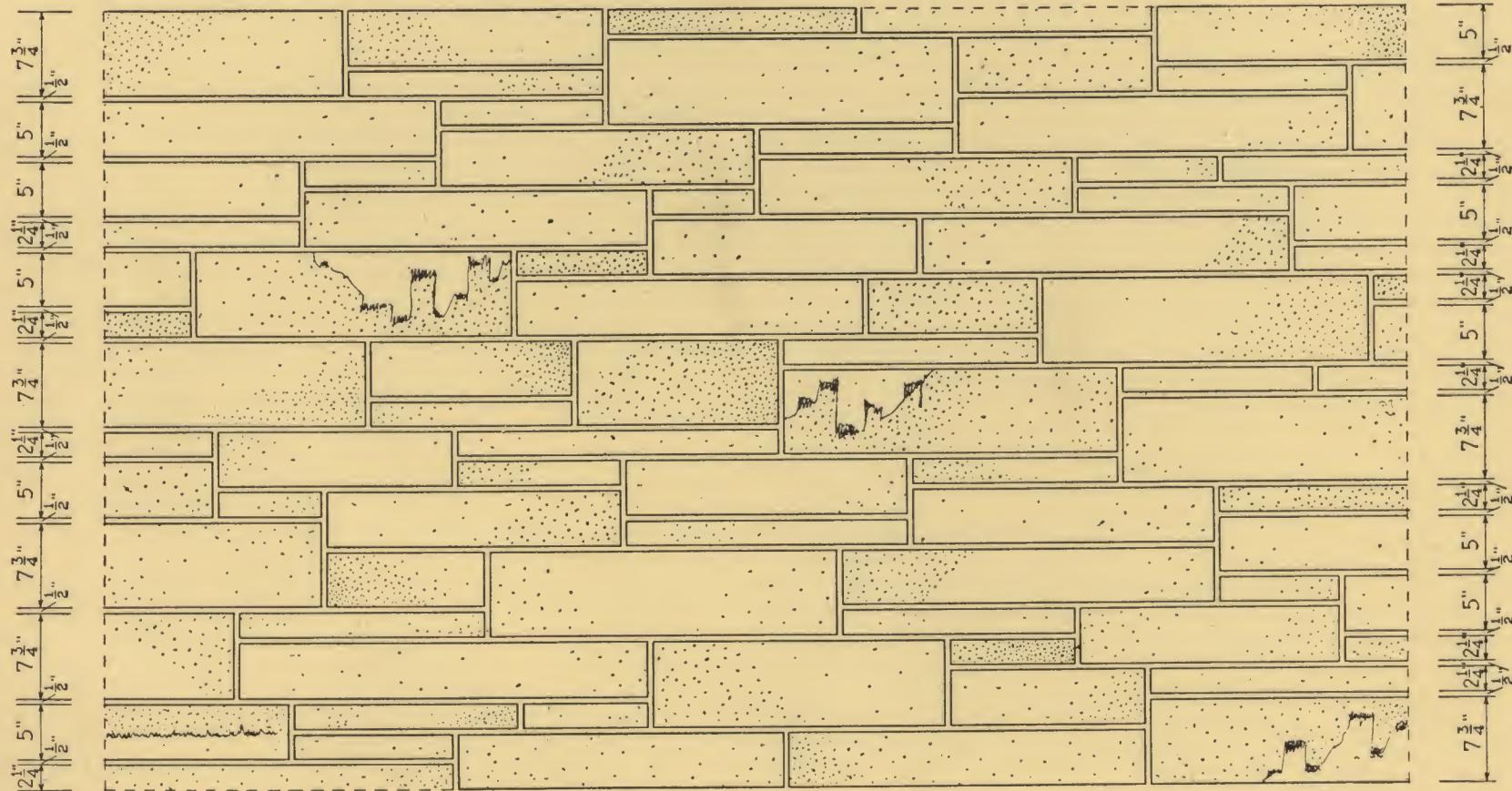
DRAWING #15
Binder File 81.2
Classification



STRUCTURAL DESIGN FOR INDIANA LIMESTONE



Two unit, medium type random ashlar, illustrated in special
ILCO wall panel No.11. The lengths of the larger stones average
about three times their height. Joints are one half inch.



Three unit, long type random ashlar, similar except vertical joints
to special ILCO wall panel No.7. Lengths of most stones average
at least four times their heights. Joints are one half inch.

Furnished in strips; jointed to length at building site.

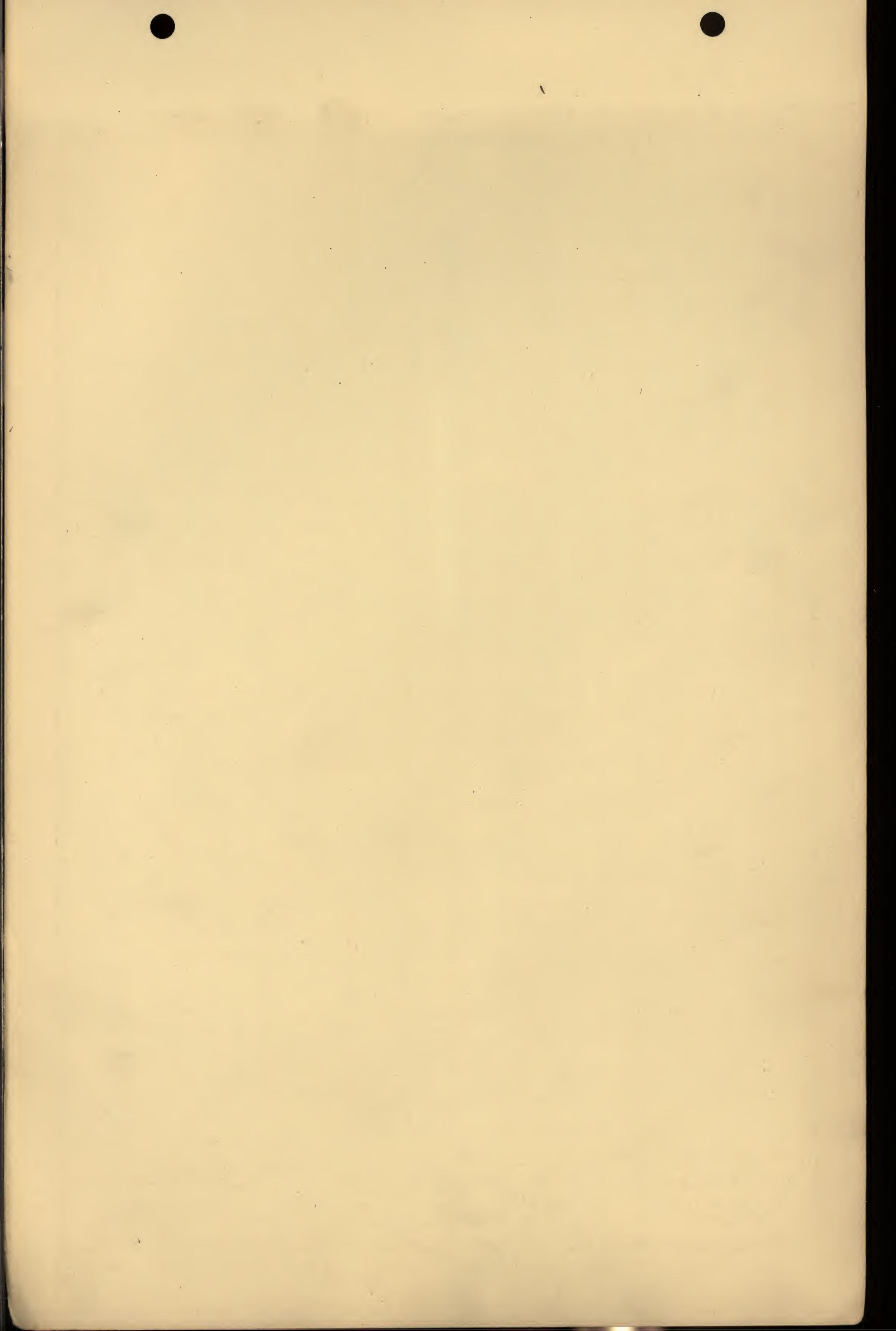
**THE NATION'S
BUILDING
STONE**

RANDOM ASHLAR

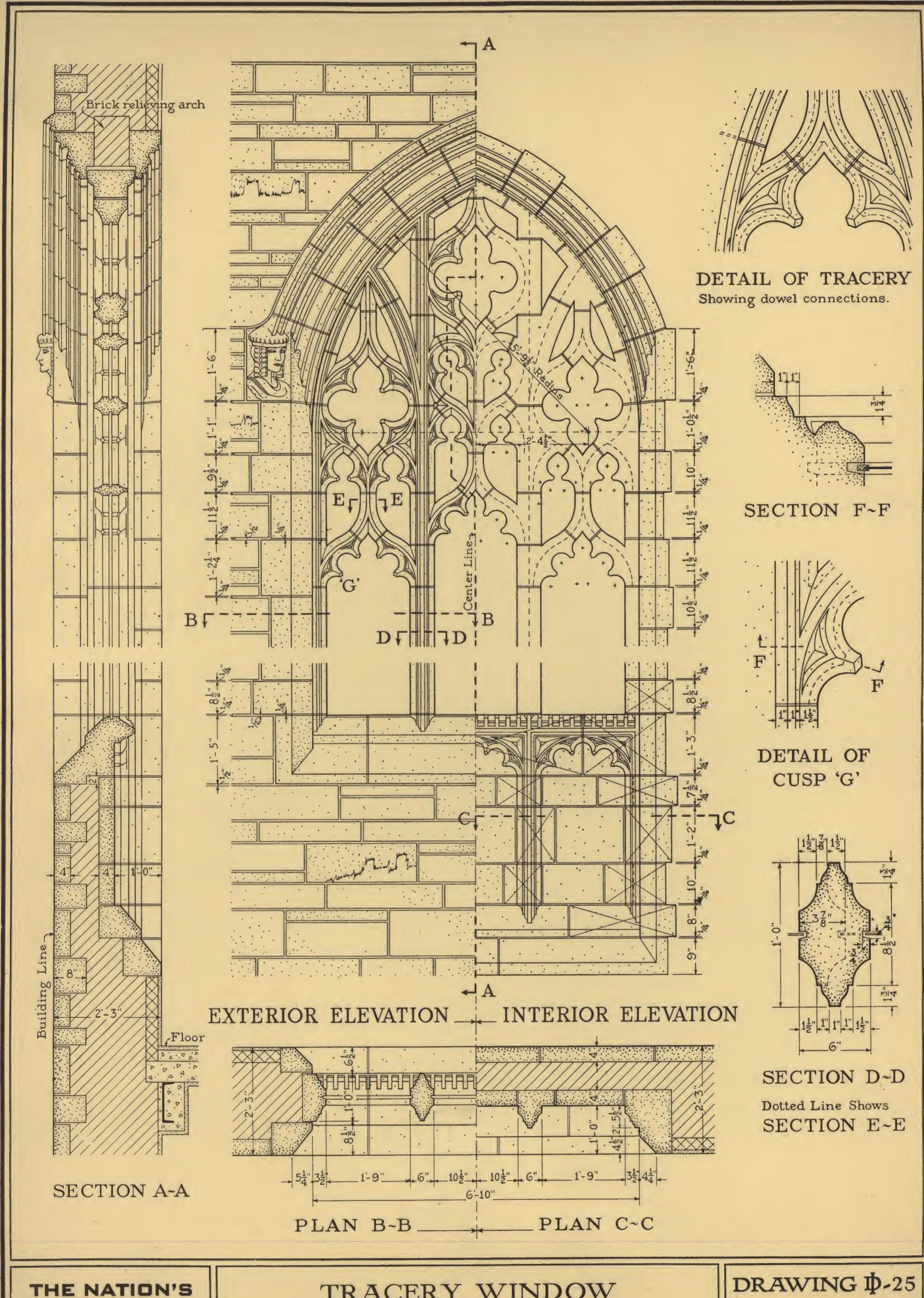
Two unit, medium type and three unit, long type
jointing details for walls of ILCO RIPSTONE.

DRAWING #16

Binder File
Classification } 85.3



STRUCTURAL DESIGN FOR INDIANA LIMESTONE



THE NATION'S
BUILDING
STONE

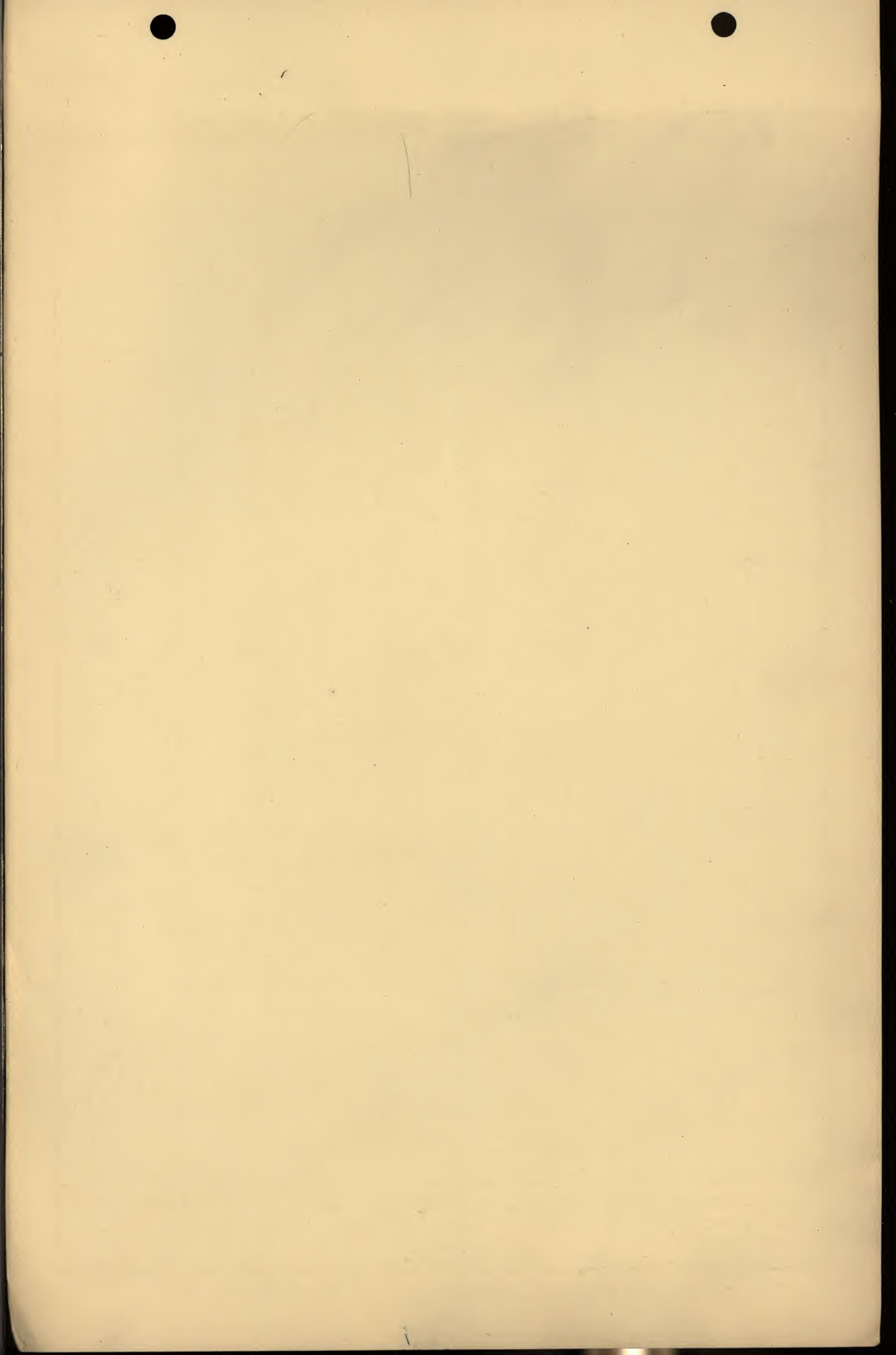
TRACERY WINDOW
Gothic Tracery Window showing Exterior
and Interior Treatment.

DRAWING #25
Binder File
Classification } 44.1

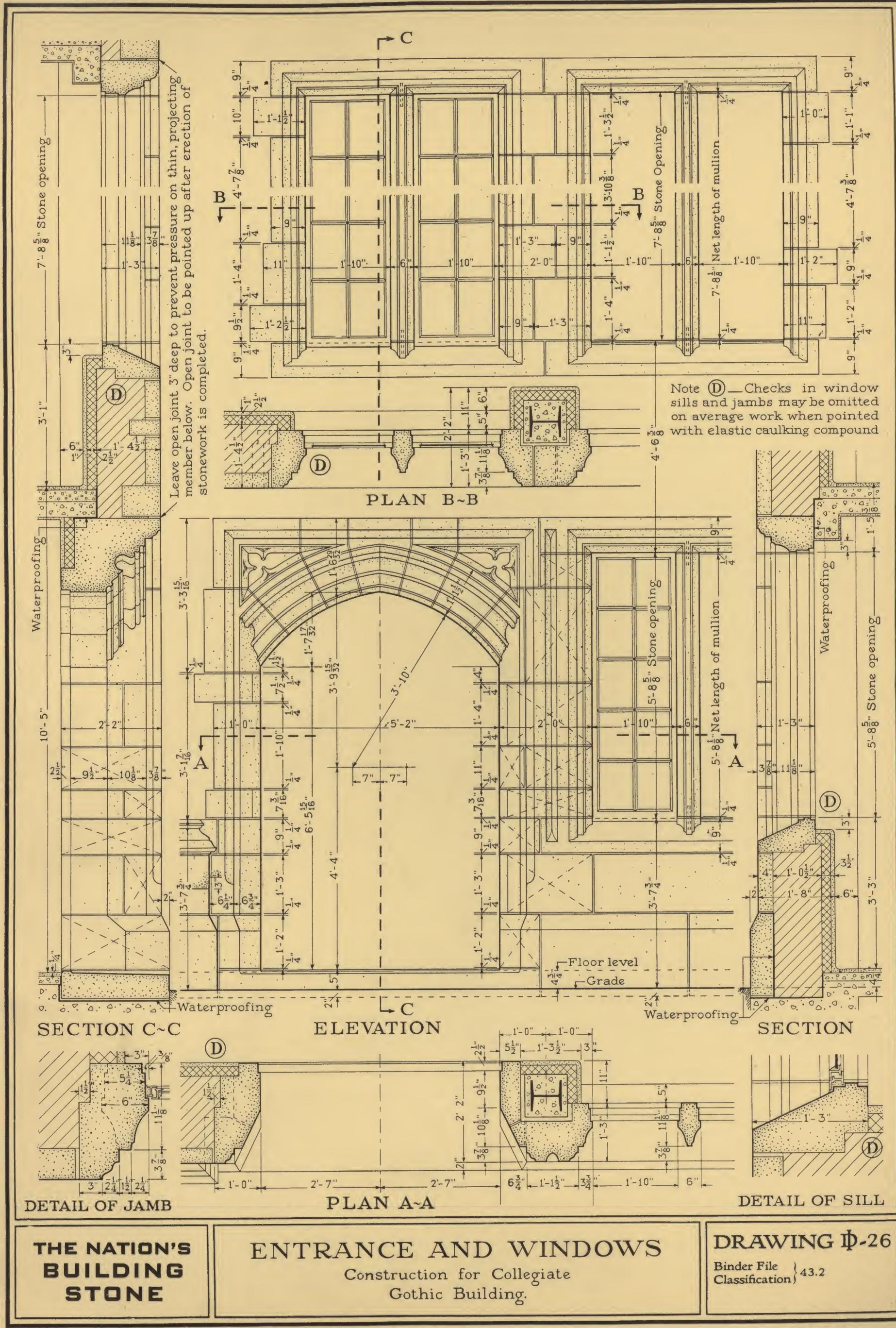
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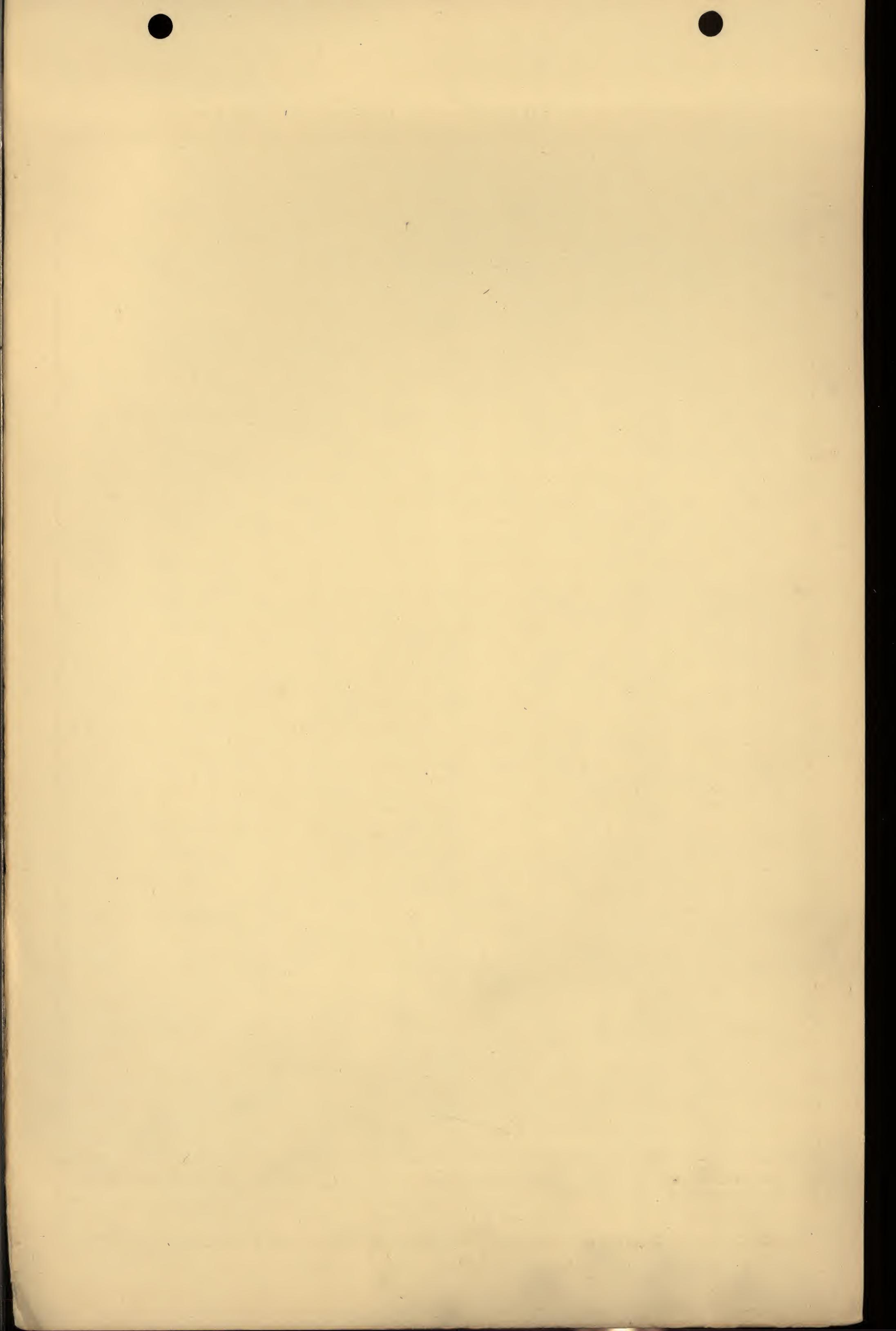
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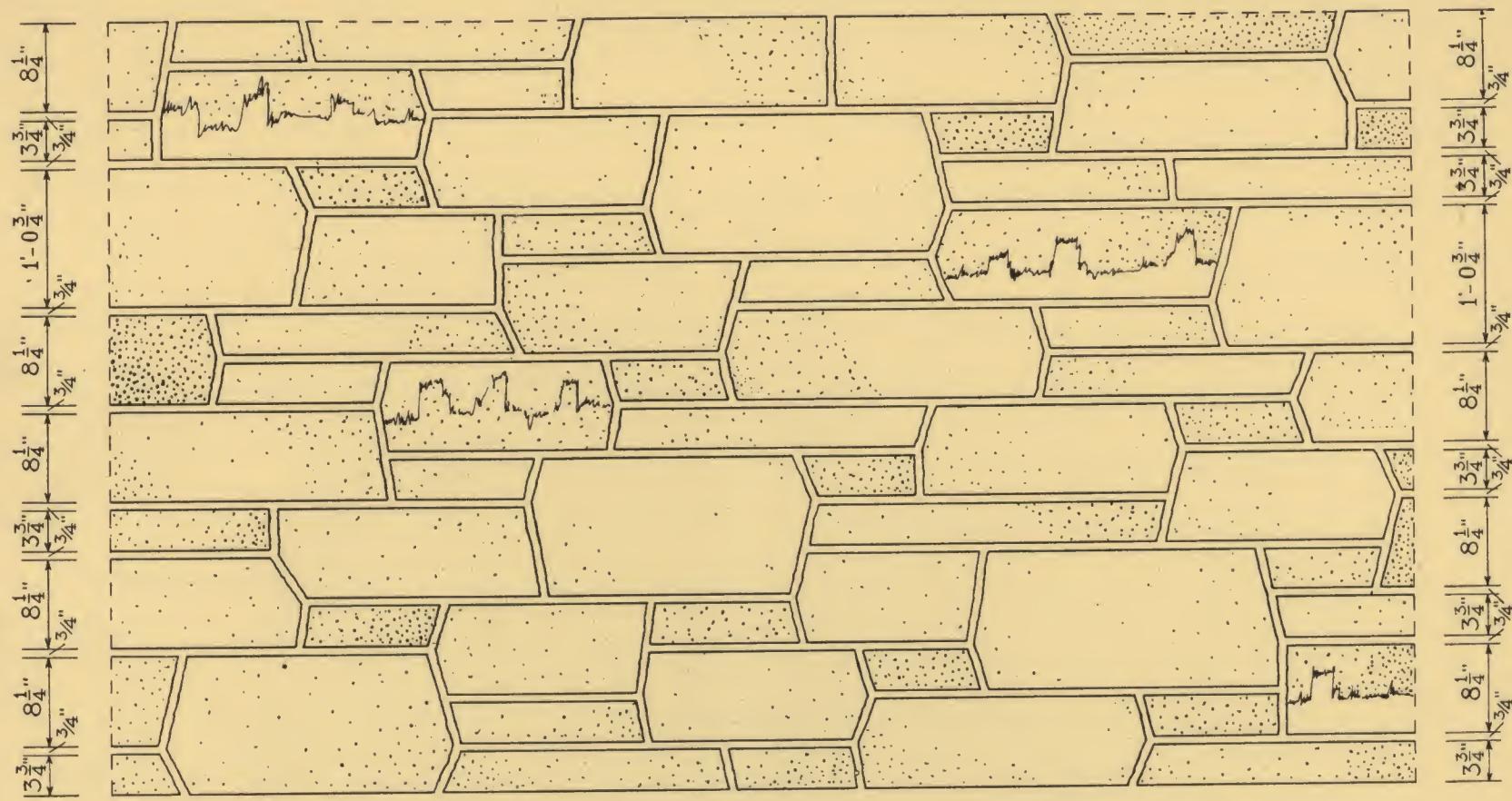


STRUCTURAL DESIGN FOR INDIANA LIMESTONE

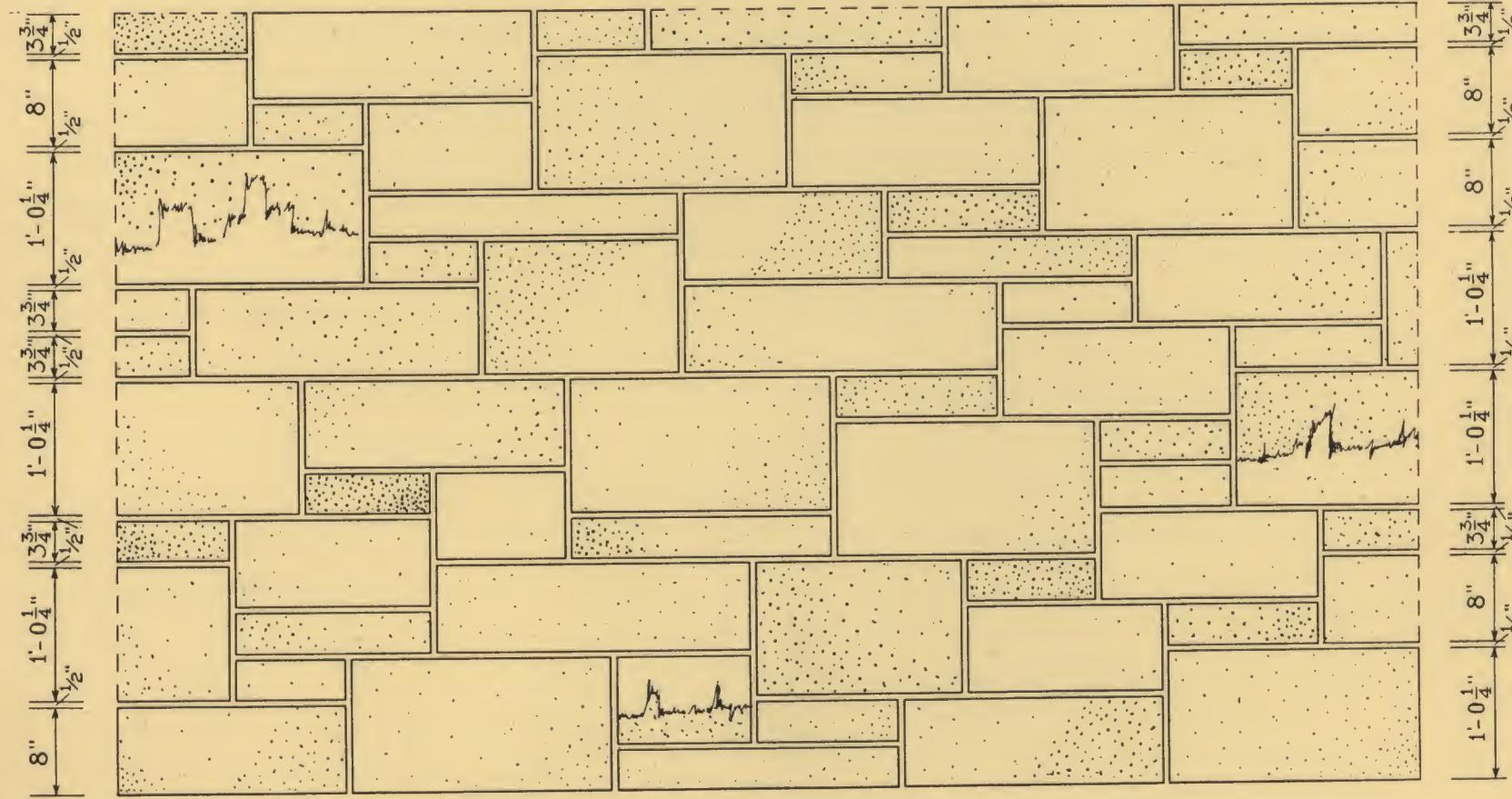




STRUCTURAL DESIGN FOR INDIANA LIMESTONE



Angular broken end, three unit random ashlar, similar to special **ILCO** wall panel No.10. Lengths of the larger stones average about twice their heights. Joints are three fourths of an inch.



Three unit, medium type random ashlar, similar to special **ILCO** wall panel No.15. Lengths of larger stones average about twice their heights. Joints are one half inch.

Furnished in strips; jointed to length at building site.

**THE NATION'S
BUILDING
STONE**

RANDOM ASHLAR

Three unit, medium type jointing details, in plain and special treatment for walls of **ILCO RIPLSTONE**

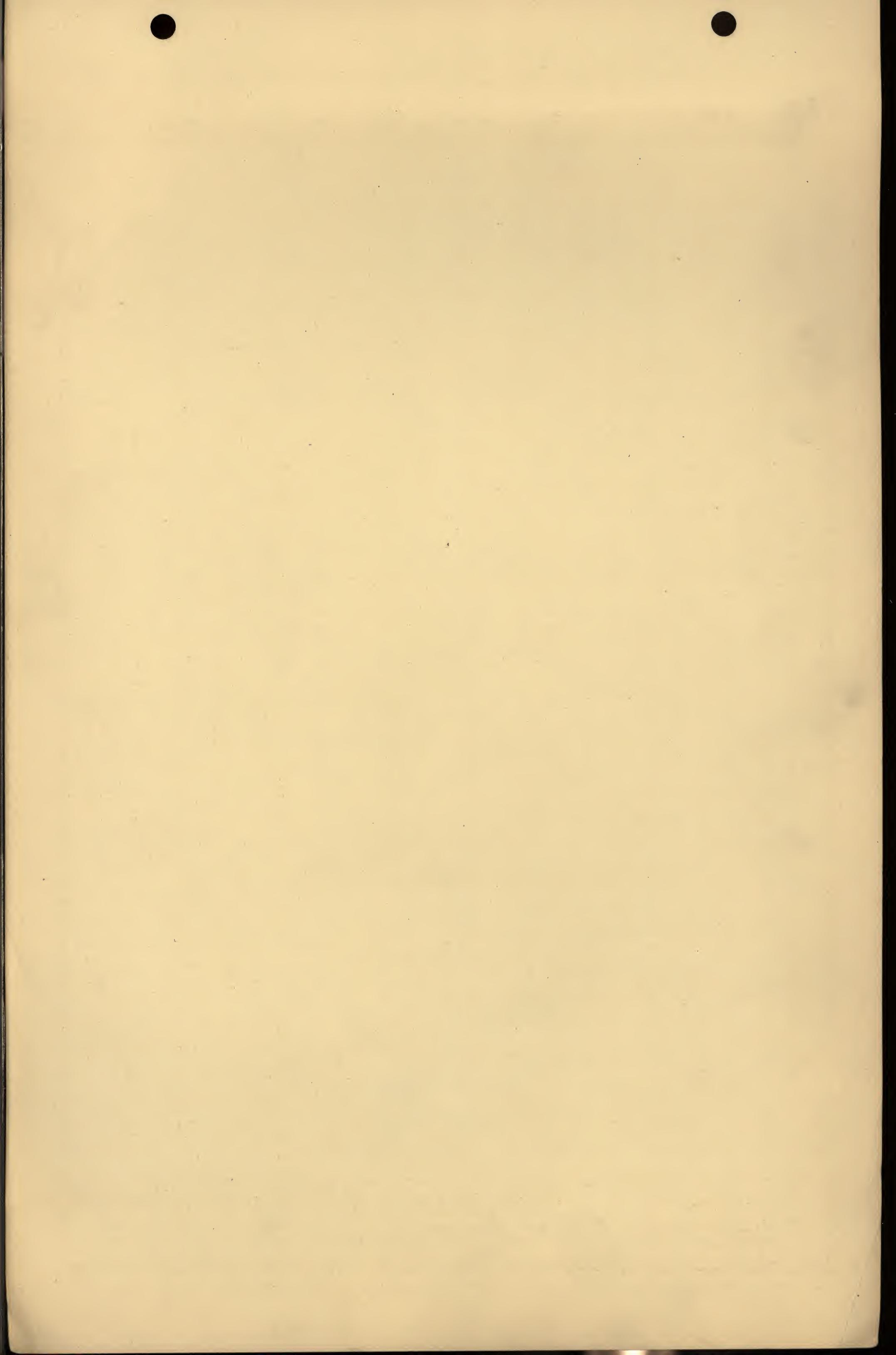
DRAWING #27

Binder File
Classification 85.4

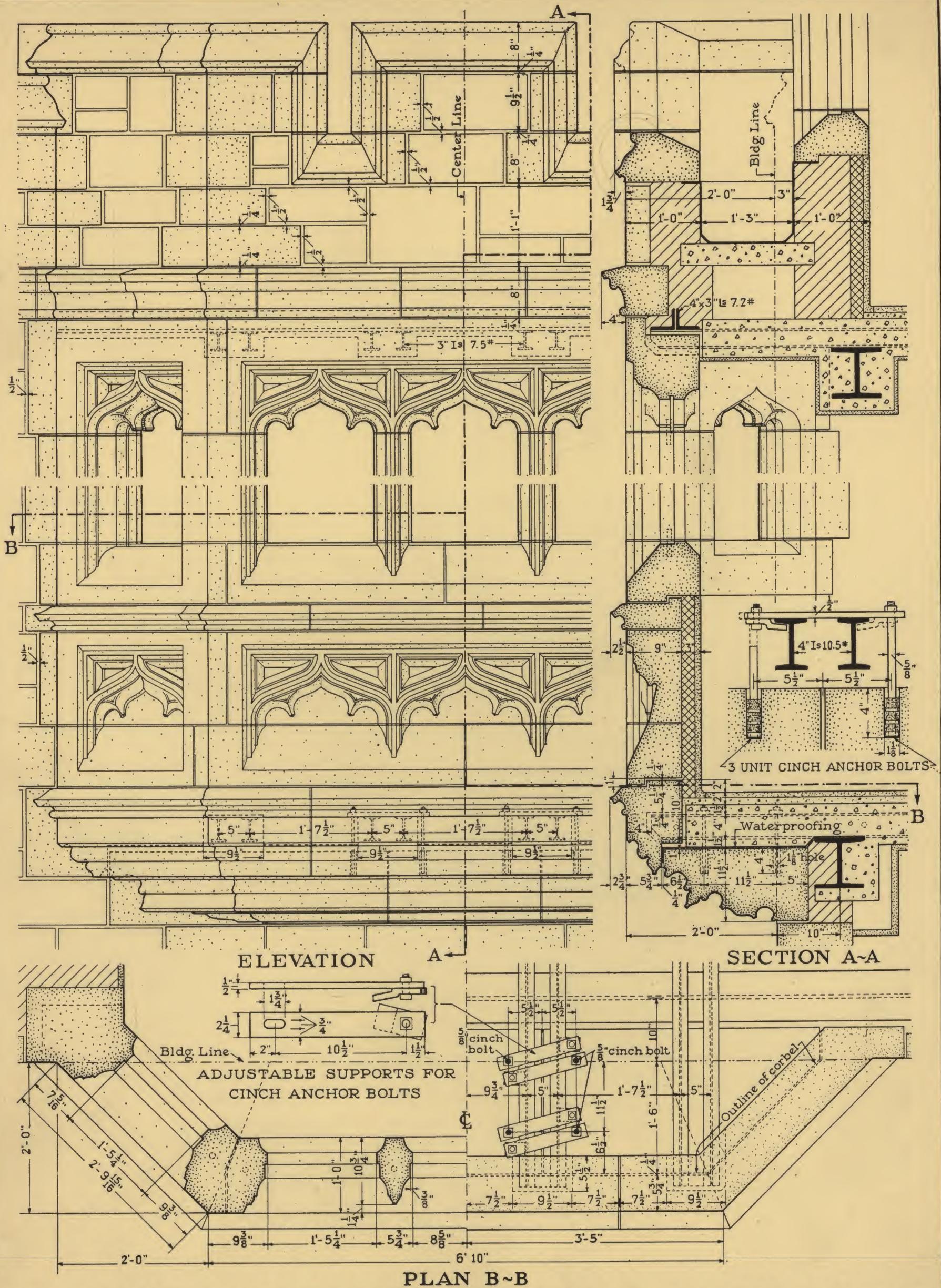
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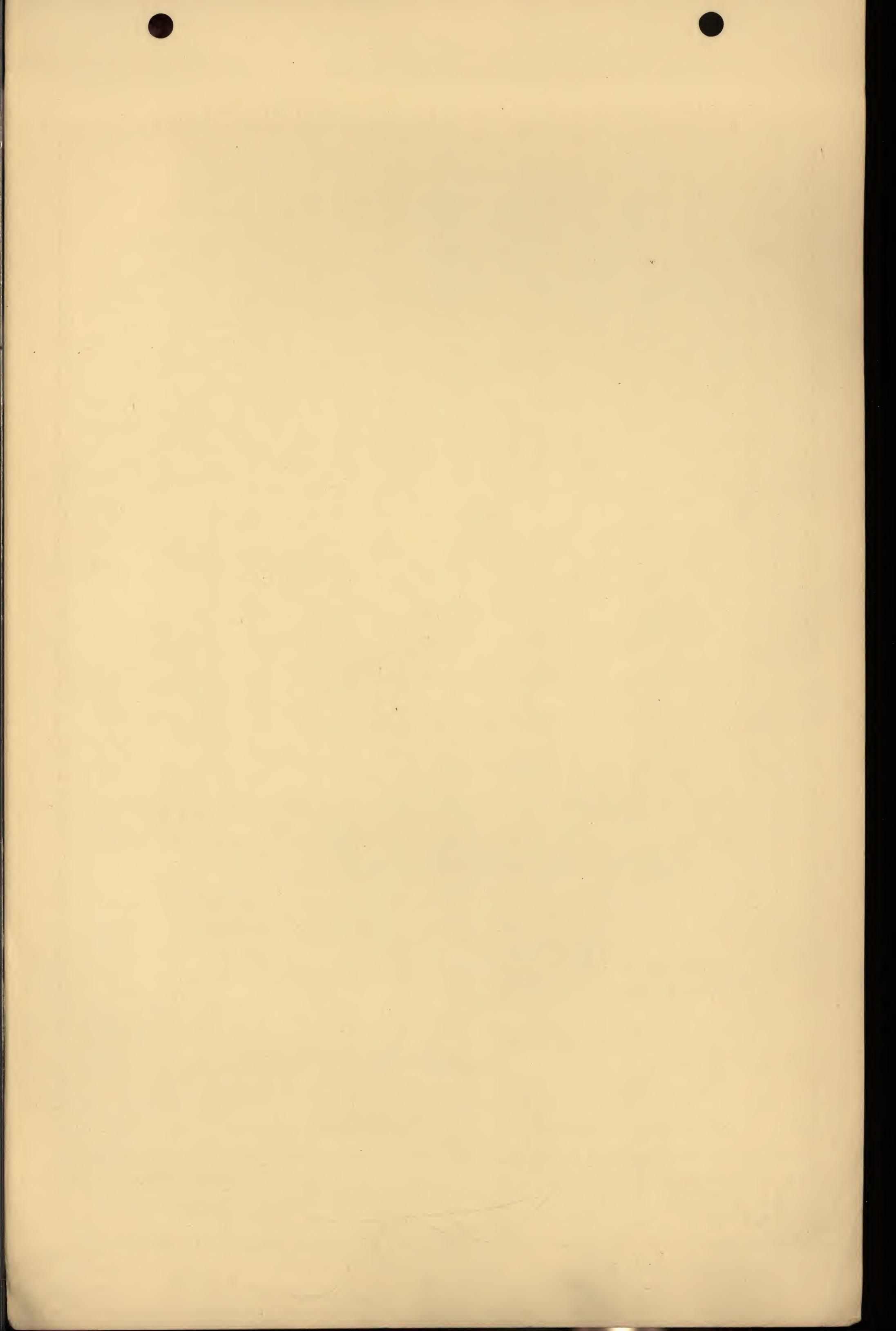
STRUCTURAL DESIGN FOR INDIANA LIMESTONE



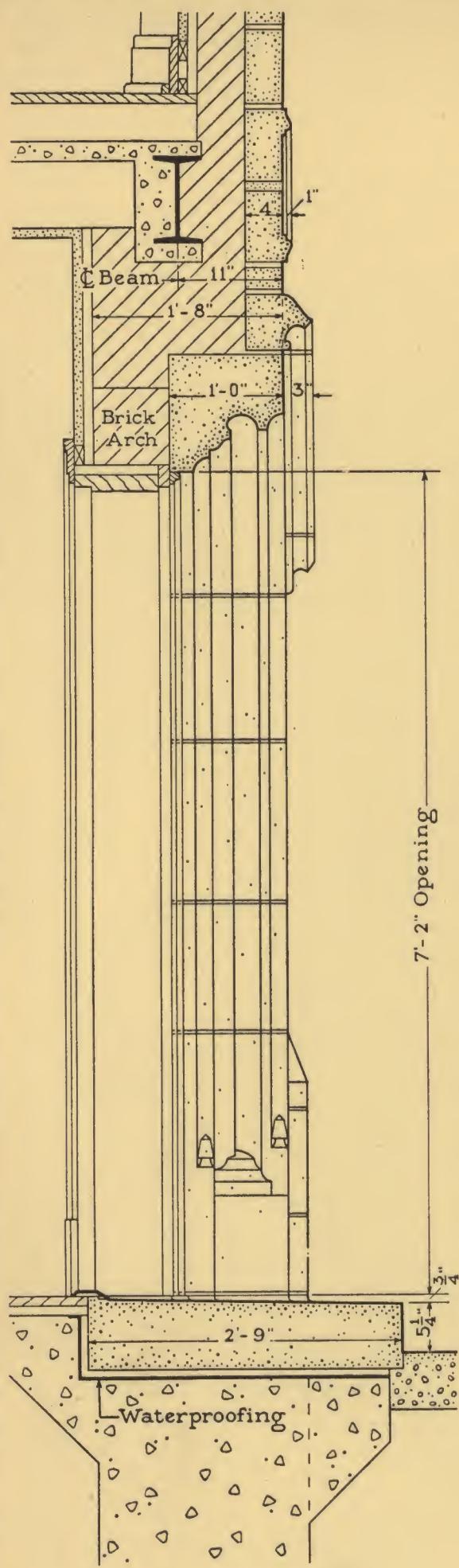
THE NATION'S
BUILDING
STONE

CORBELED BAY
Construction for Support of
Corbeled Bay Window.

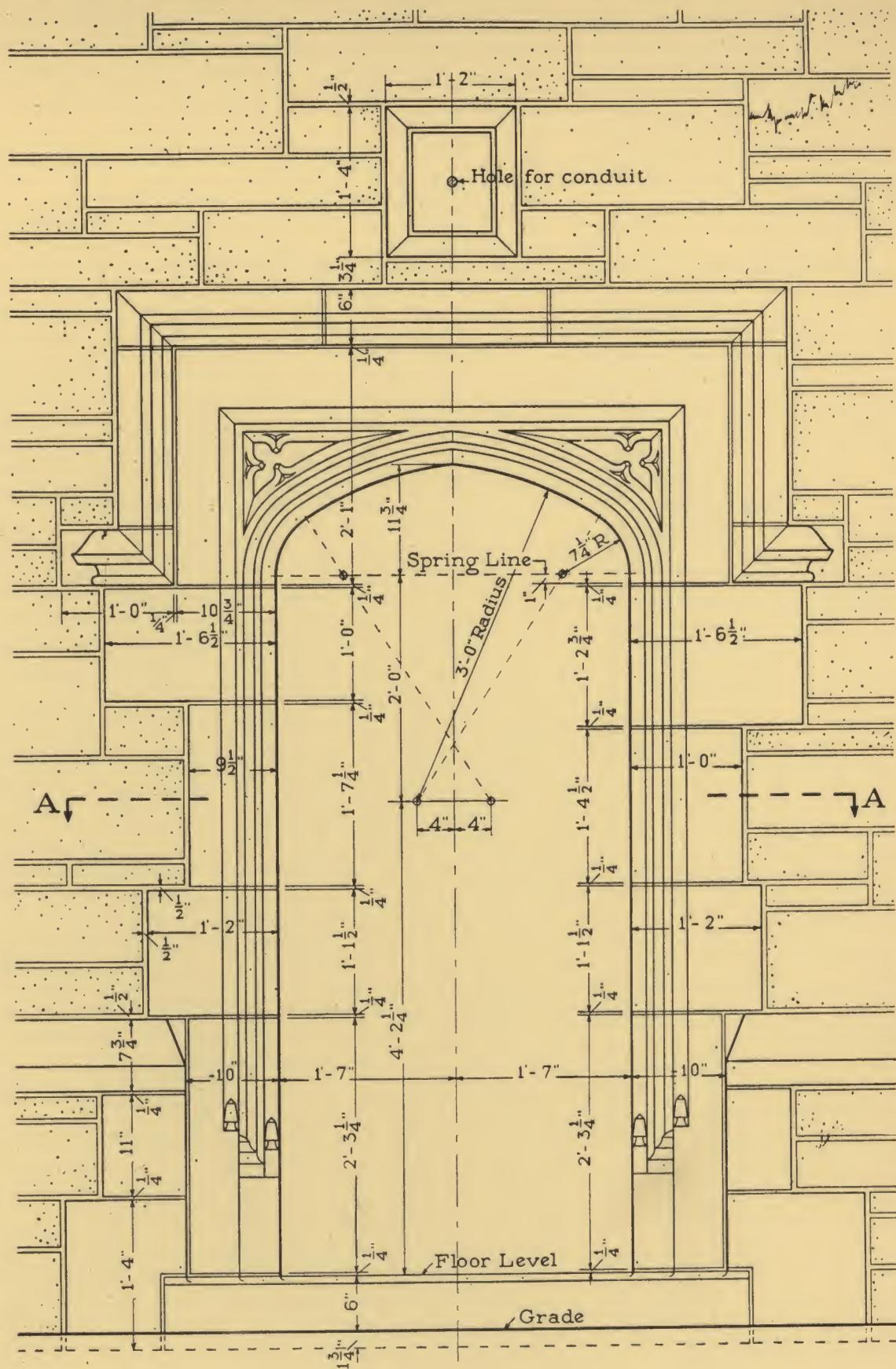
DRAWING #28
Binder File { 43.3
Classification }



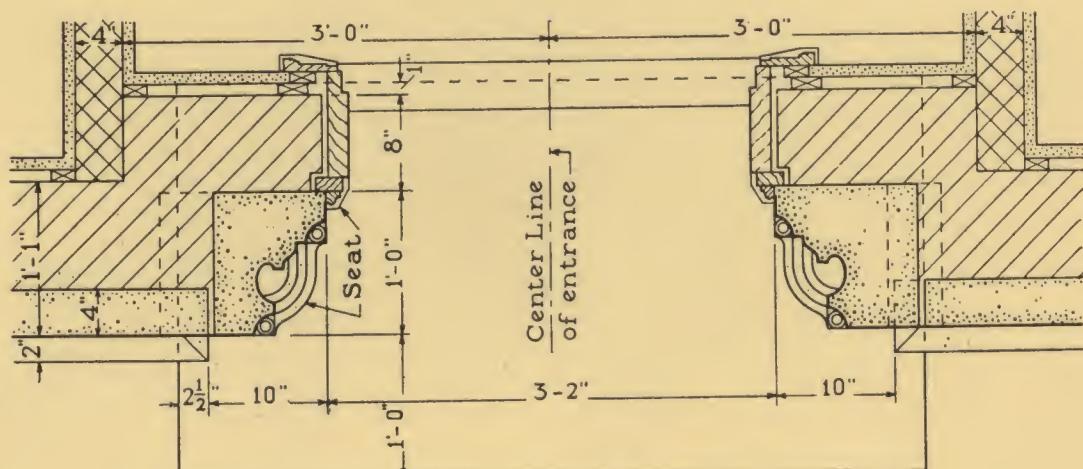
STRUCTURAL DESIGN FOR INDIANA LIMESTONE



SECTION
AT CENTER LINE



ELEVATION



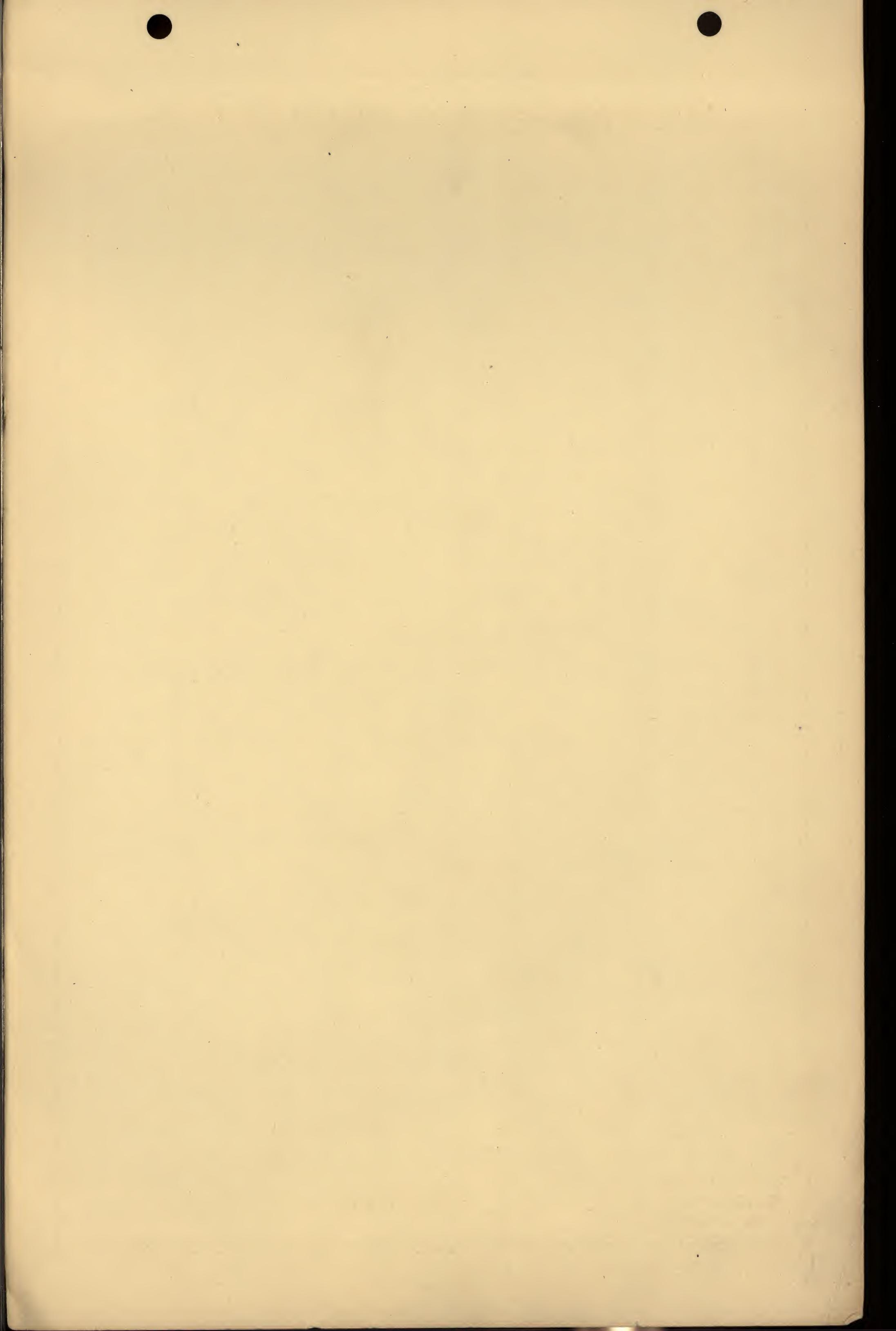
PLAN A-A

THE NATION'S
BUILDING
STONE

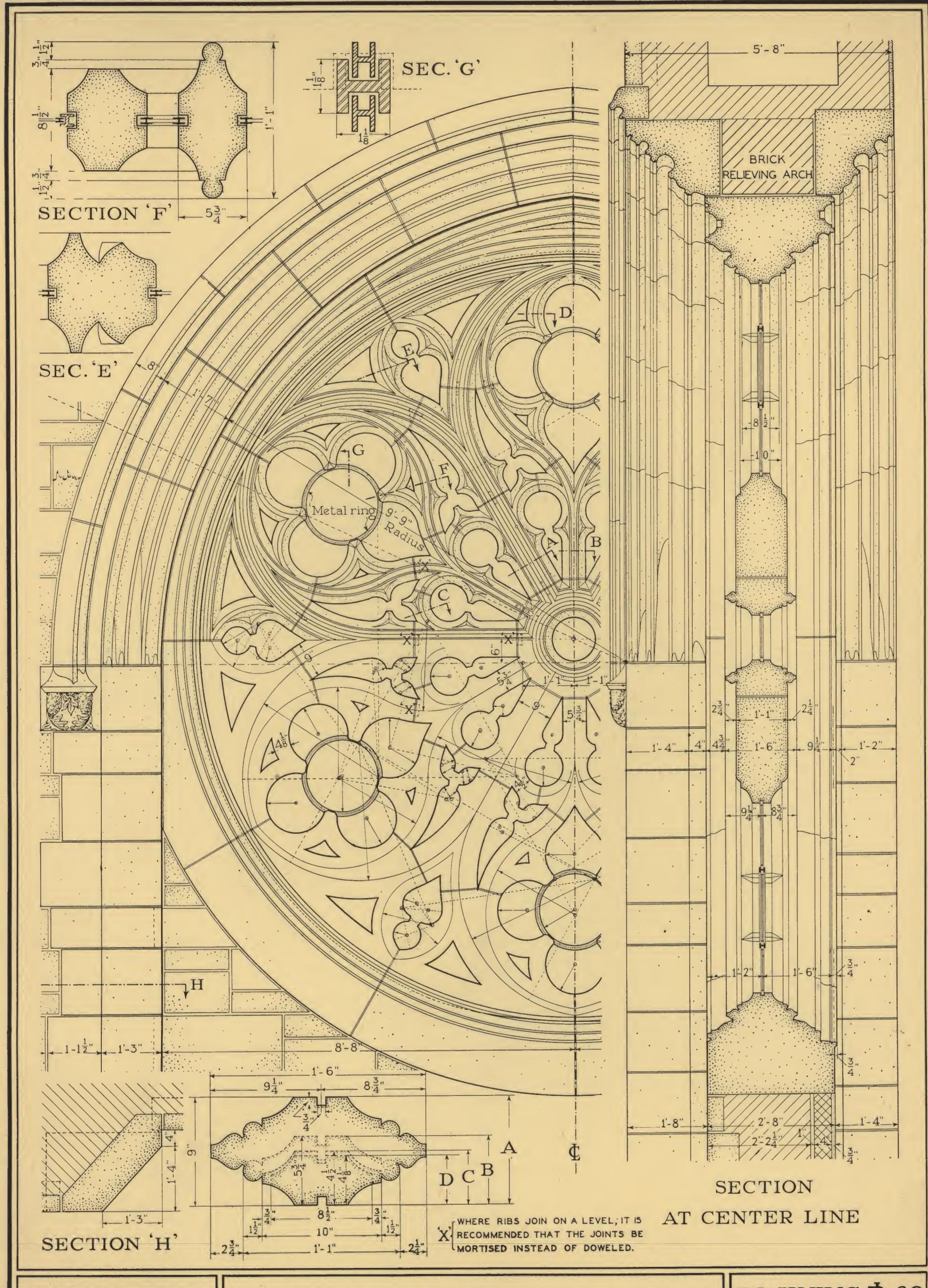
GOTHIC ENTRANCE

DRAWING #29

Binder File
Classification } 43.4



STRUCTURAL DESIGN FOR INDIANA LIMESTONE



THE NATION'S
BUILDING
STONE

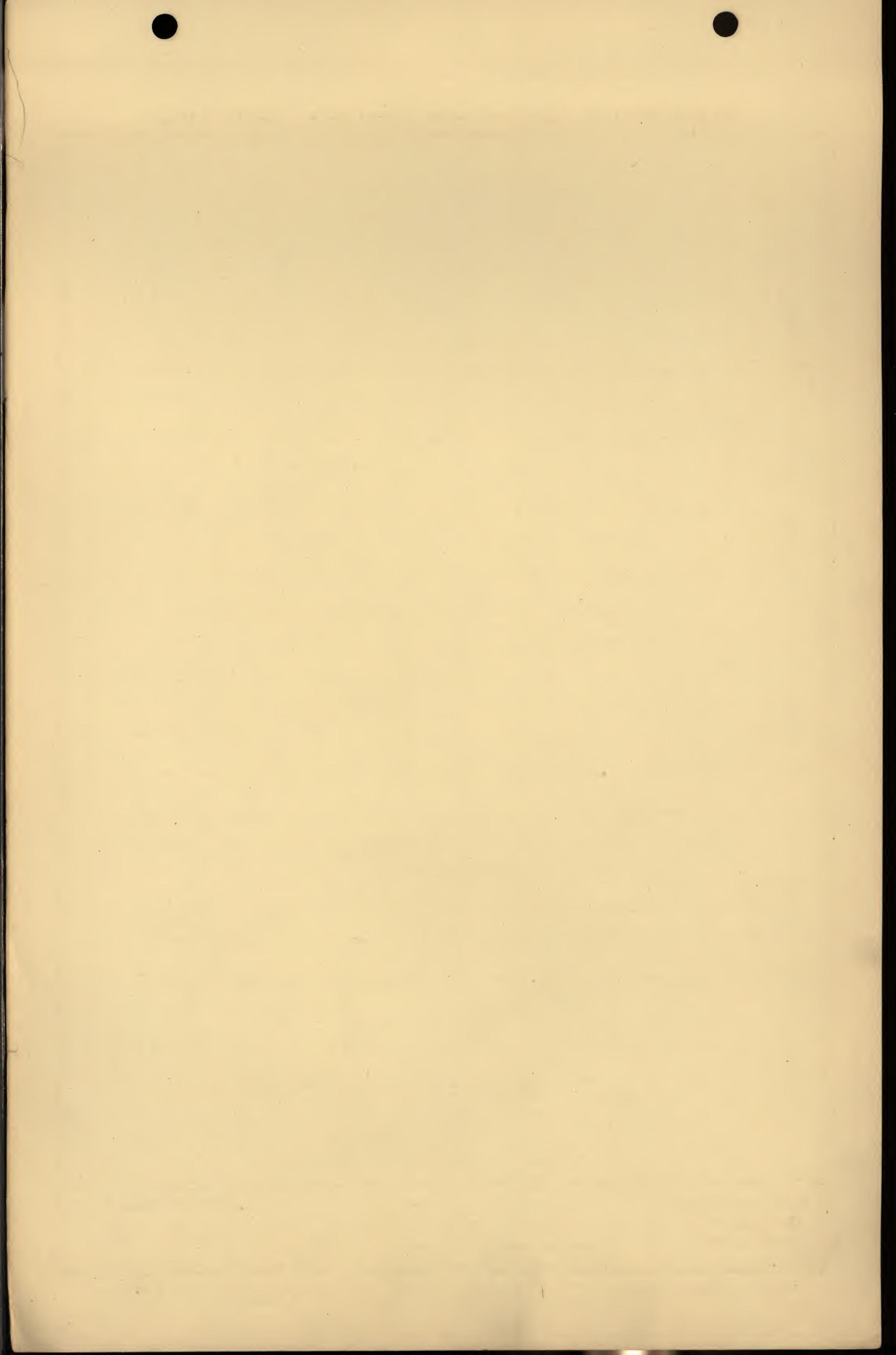
ROSE WINDOW

DRAWING #30
Binder File
Classification } 44.2

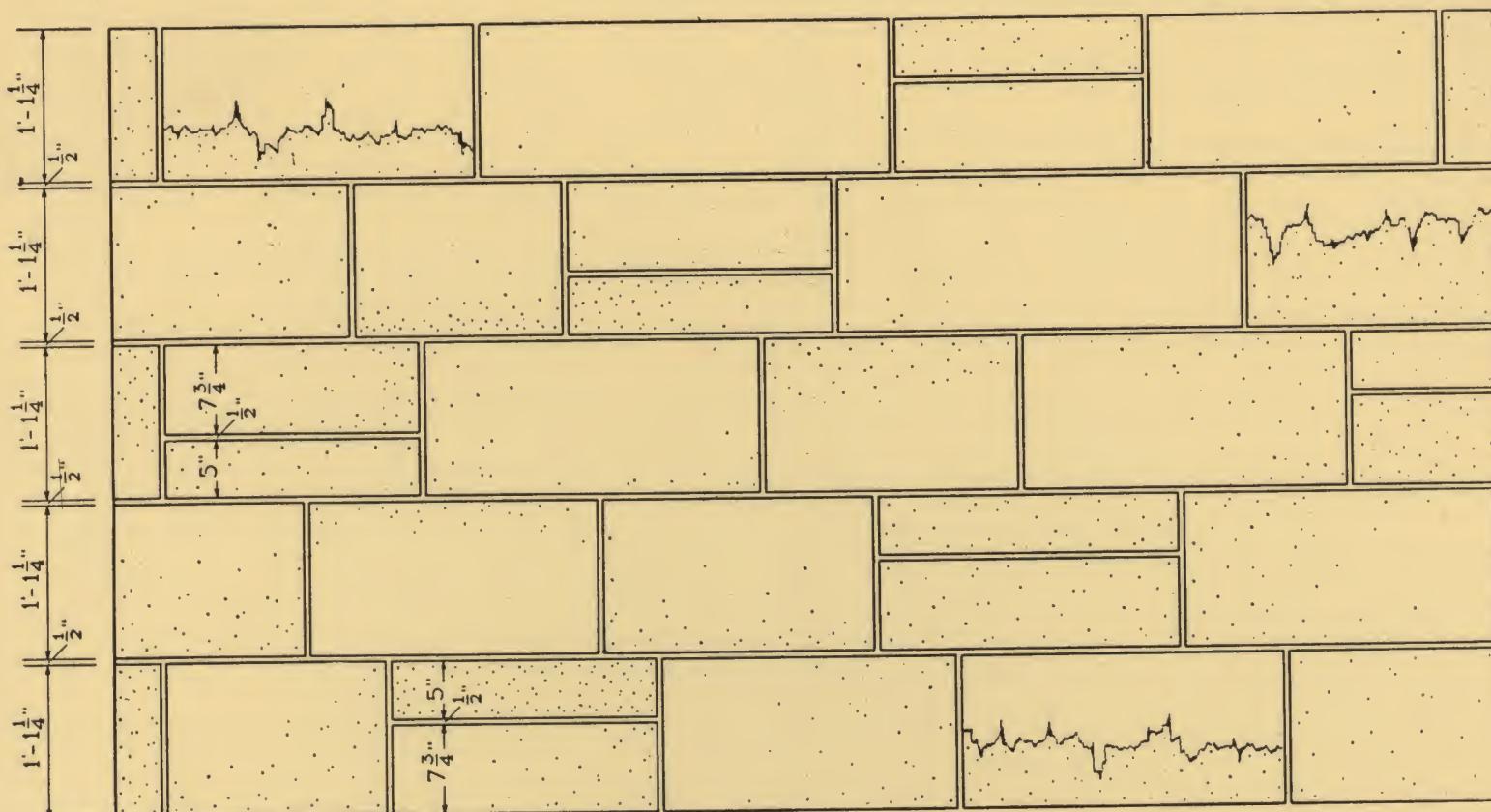
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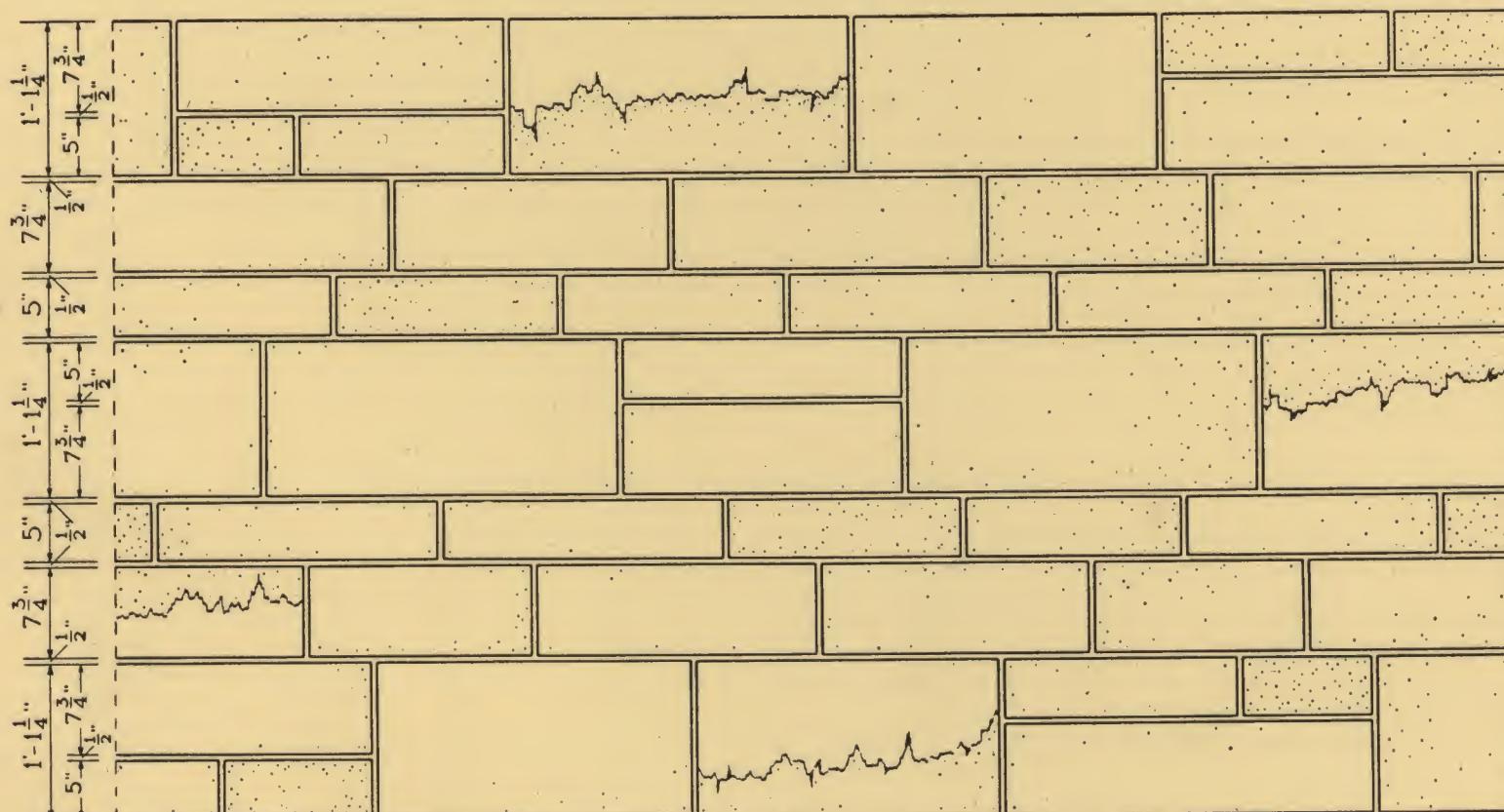
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STRUCTURAL DESIGN FOR INDIANA LIMESTONE



Range work of equal course heights with occasional units divided by horizontal joints; similar to ILCO wall panel No. 20. Joints are one half inch.



Three unit range work with occasional horizontal joints in the higher courses. Joints are one half inch.

Furnished in strips jointed to length at building site.

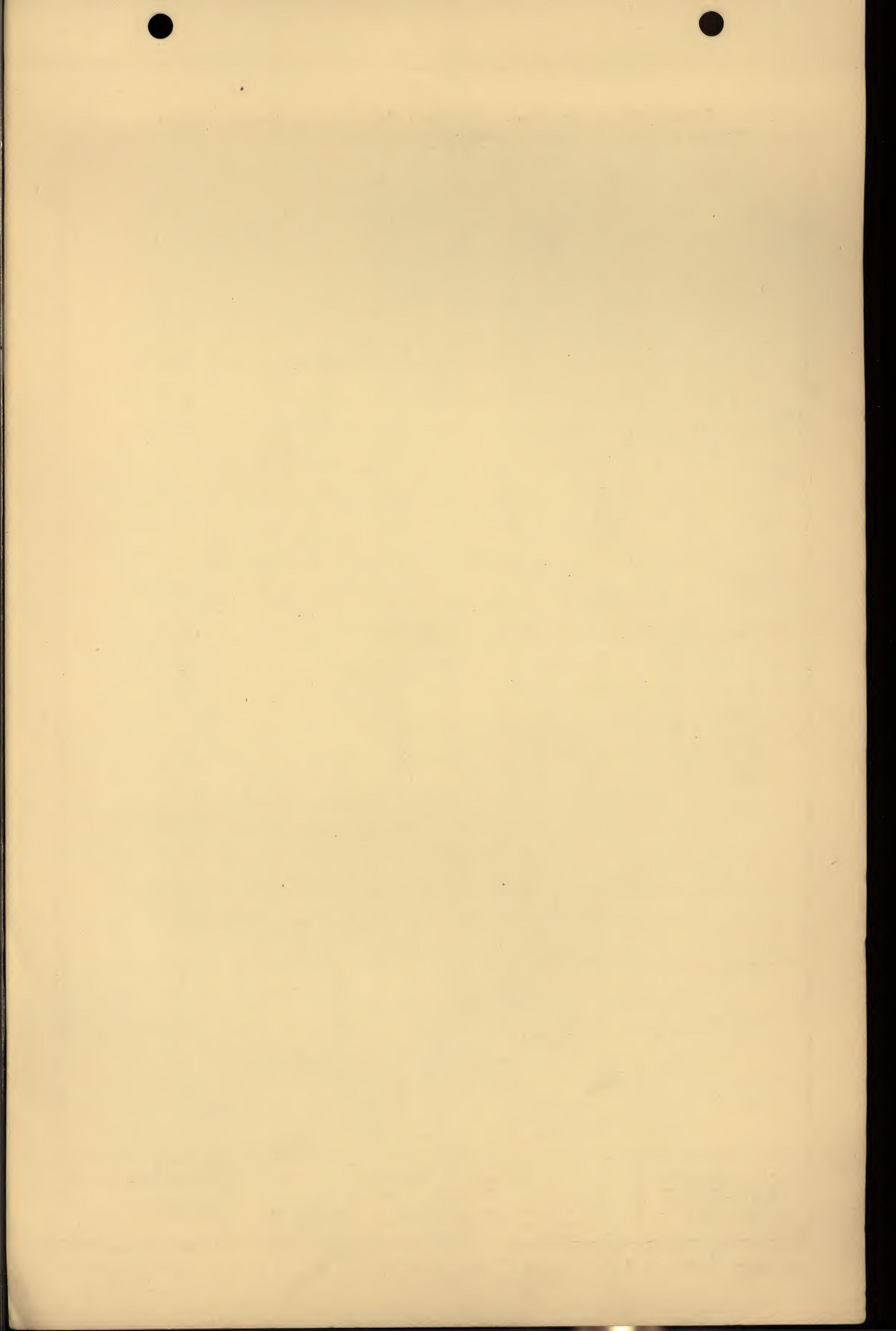
THE NATION'S
BUILDING
STONE

RANGE WORK

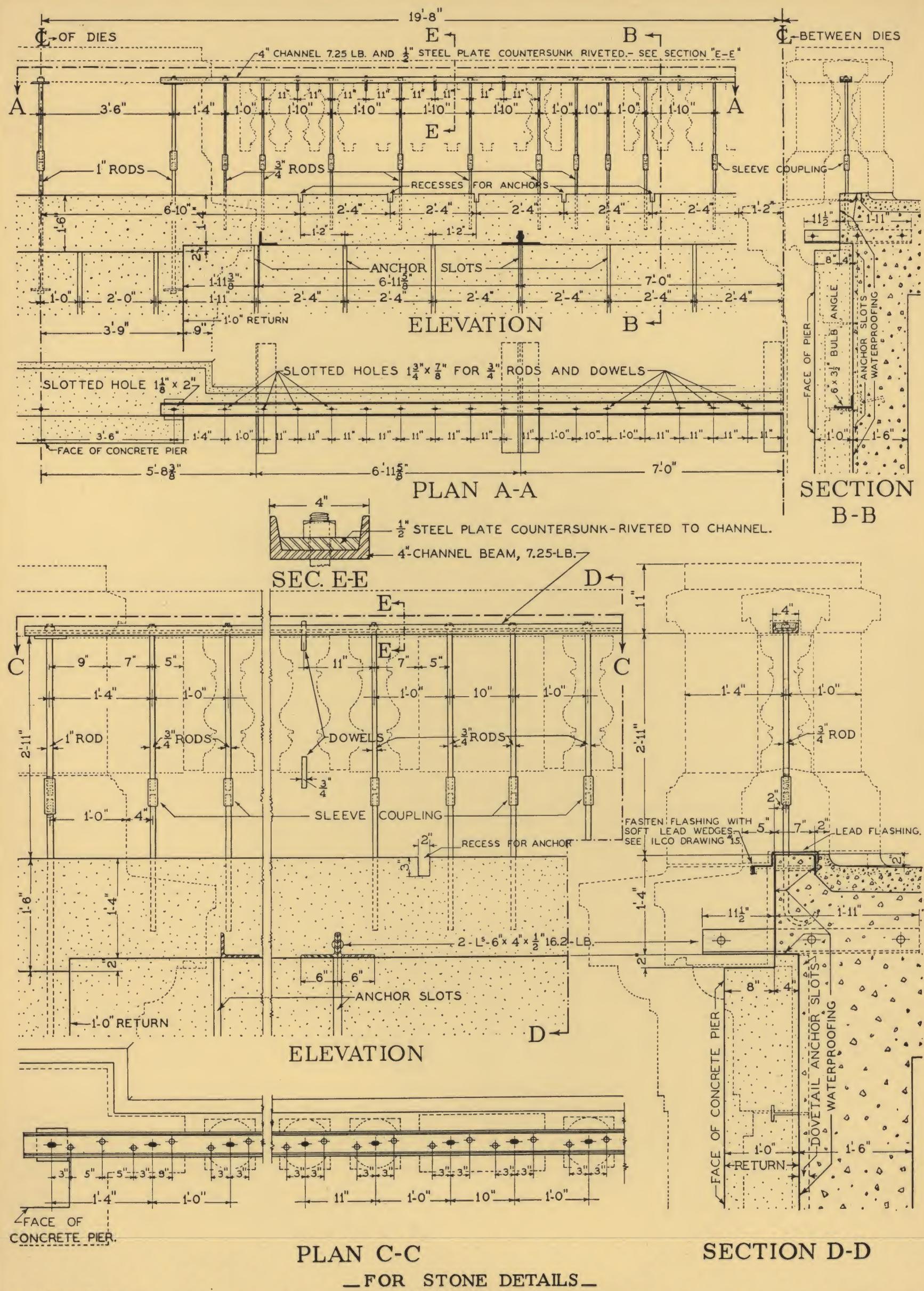
Jointing details of equal and unequal course heights, random lengths, for walls of ILCO RIPLSTONE

DRAWING #31

Binder File } 85.5
Classification }



STRUCTURAL DESIGN FOR INDIANA LIMESTONE



C. W. NOTHNAGEL, DEL.

THE NATION'S BUILDING STONE

BALUSTRADE CONCRETE AND STEEL SUPERSTRUCTURE

For Viaducts and Bridges, Featuring Special
Construction that will withstand Heavy Impact

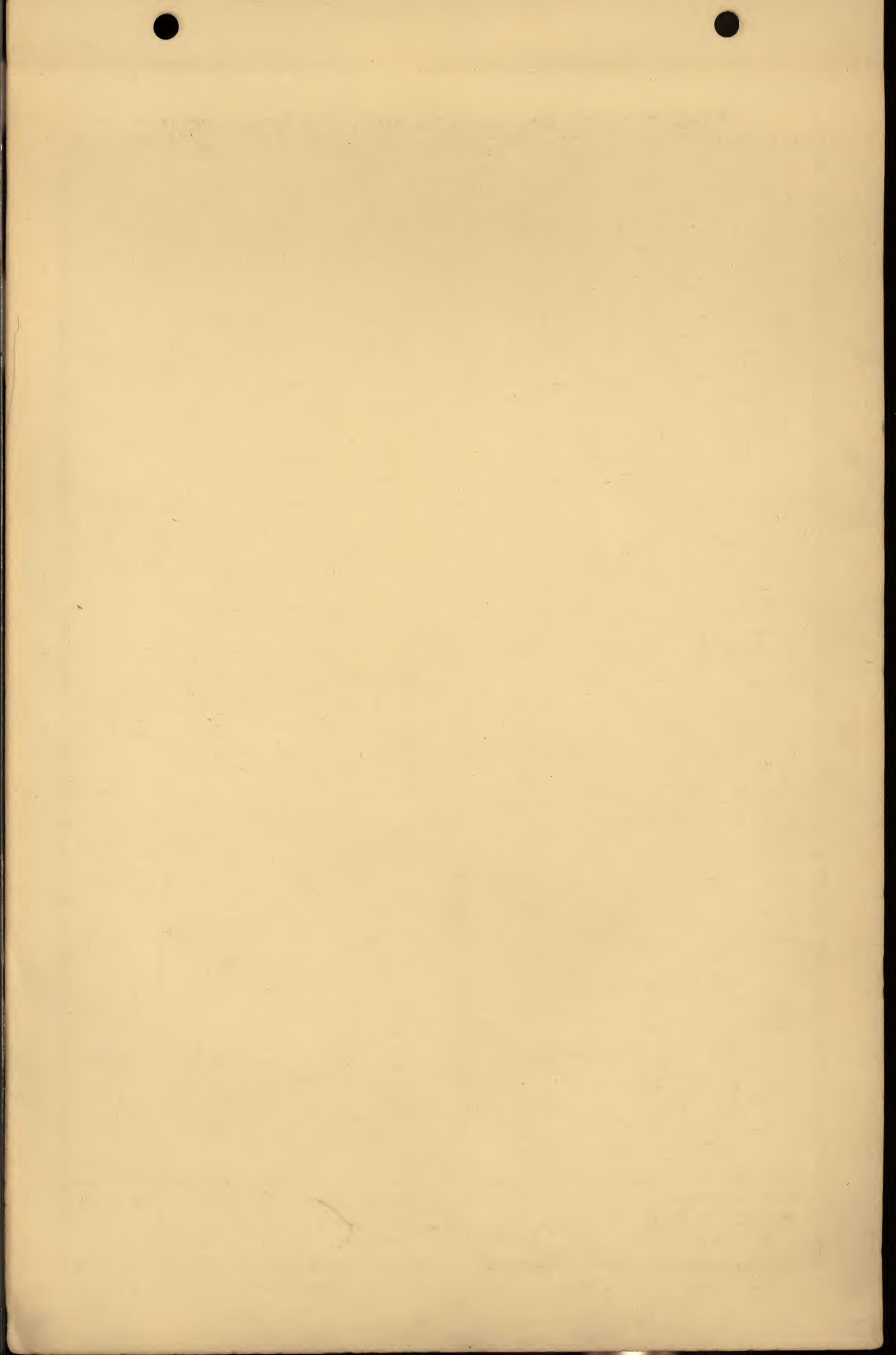
DRAWING Φ-33

Binder File } 75.2
Classification }

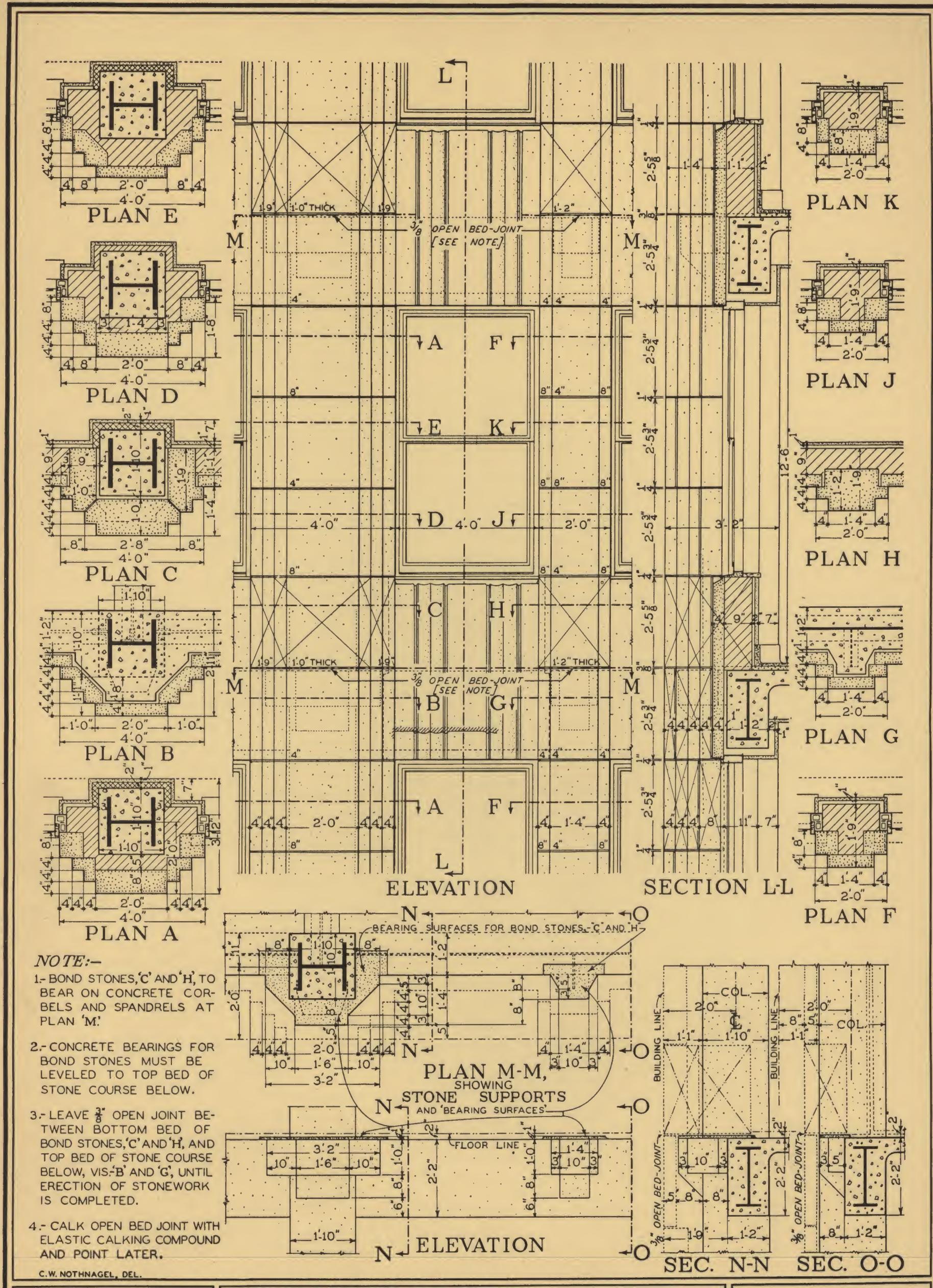
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STRUCTURAL DESIGN FOR INDIANA LIMESTONE



THE NATION'S BUILDING STONE

STONE SUPPORTS

With Bearings Directly on the Superstructure,
for Buildings with Pier and Recessed Treatment

DRAWING Φ-35

Binder File Classification } 51.3

